ORDER NO. AD9208264C8

Service Manual

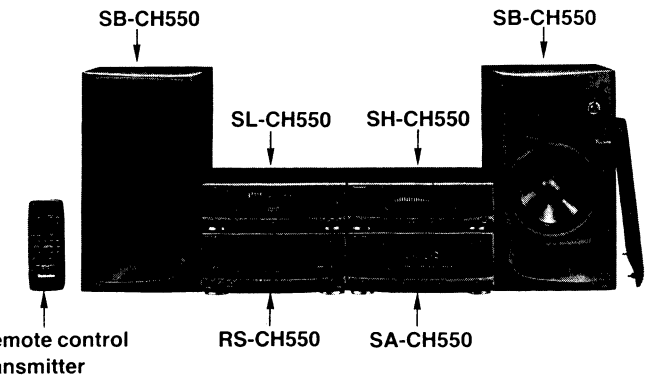
Compact Disc Player

Compact Disc Player

SL-CH550

COMPACT disc DIGITAL AUDIO

MASH* multi-stage noise shaping



Colour

(K) ..... Black Type

Area

Suffix for Model No.	Area	Colour
(E)	Europe, Asia, Latin America, Middle Near East, Africa and Oceania	(K)

System: SC-CH550

Because of unique interconnecting cables, when a component requires service, send or bring in the entire system.

NEW TRAVERSE DECK (RAE0111Z) (Refer to page 24.)

SPECIFICATIONS

(DIN 45 500)

■ AUDIO	
Frequency response	2–20,000 Hz, ±1 dB
Wow & Flutter	Below measurable limit
■ PICKUP	
Wavelength	780 nm
■ GENERAL	
Dimensions (W×H×D)	270×89.5×257 mm
Weight	2.1 kg

Notes:

1. Specifications are subject to change without notice.
2. Weight and dimensions are approximate.
3. Total harmonic distortion is measured by the digital spectrum analyzer.

* ●Technics (or Panasonic) developed the world's first MASH type DAC and ADC. MASH technology was invented by NTT (LSI Labs).
●MASH is a trademark of NTT.

System	Sound processor	Tuner amplifier	Compact disc player	Cassette deck	Speakers
SC-CH550	SH-CH550	SA-CH550	SL-CH550	RS-CH550	*SB-CH550

*Europe area...Made in PAES

Technics

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■ HANDLING PRECAUTIONS FOR TRAVERSE DECK

The laser diode in the traverse deck (optical pickup) may break down due to potential difference caused by static electricity of clothes or human body.
So, be careful of electrostatic breakdown during repair of the traverse deck (optical pickup).

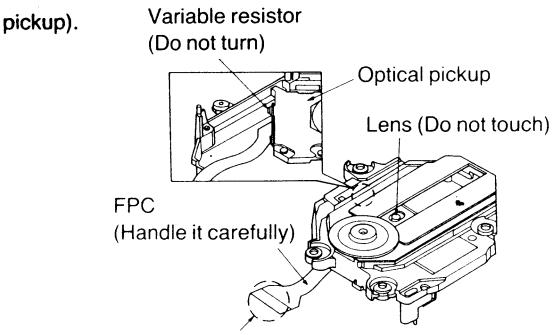
•Handling of traverse deck (optical pickup)

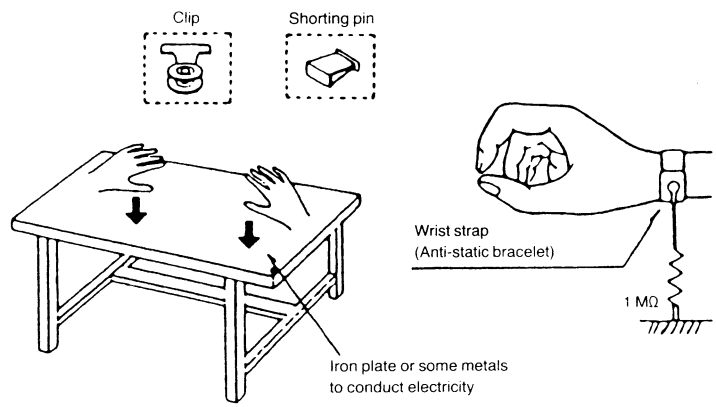
1. Do not subject the traverse deck (optical pickup) to static electricity as it is extremely sensitive to electrical shock.
2. To prevent the breakdown of the laser diode, an anti-static shorting pin is inserted into the flexible board (FPC board). When removing or connecting the short pin, finish the job in as short time as possible.
3. Take care not to apply excessive stress to the flexible board (FPC board).
4. Do not turn the variable resistor (laser power adjustment). It has already been adjusted.

•Grounding for electrostatic breakdown prevention

1. Human body grounding
   Use the anti-static wrist strap to discharge the static electricity from your body.
2. Work table grounding
   Put a conductive material (sheet) or steel sheet on the area where the traverse deck (optical pickup) is placed, and ground the sheet.

Caution:
The static electricity of your clothes will not be grounded through the wrist strap. So, take care not to let your clothes touch the traverse deck (optical pickup).





■ PRECAUTION OF LASER DIODE

CAUTION: This product utilizes a laser diode with the unit turned "on", invisible laser radiation is emitted from the pick up lens.
Wave length: 780 nm
Maximum output radiation power from pick up: 100 µW/VDE

Laser radiation from the pick up lens is safety level, but be sure the followings:

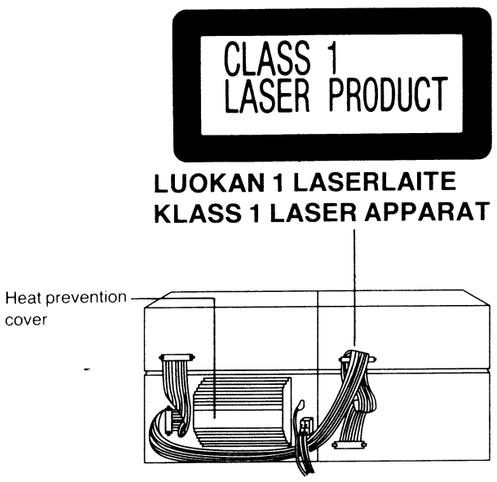
1. Do not disassemble the optical pick up unit, since radiation from exposed laser diode is dangerous.
2. Do not adjust the variable resistor on the pickup unit. It was already adjusted.
3. Do not lock at the focus lens using optical instruments.
4. Recommend not to lock at pick up lens for a long time.

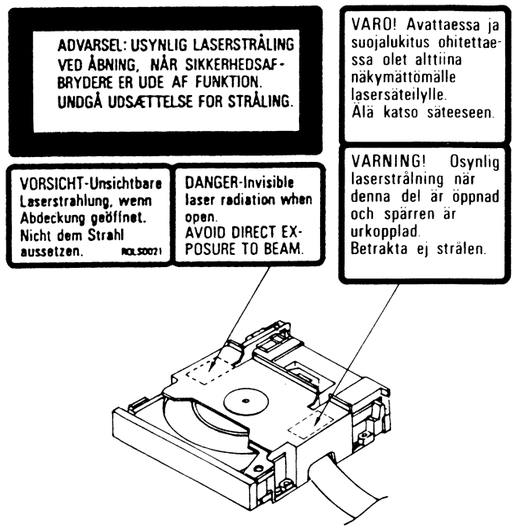
ACHTUNG: Dieses produkt enthält eine laserdiode. Im eingeschalteten zustand wird unsichtbare laserstrahlung von der lasereinheit abgestrahlt.

Wellenlänge: 780 nm
Maximale strahlungsleistung der lasereinheit: 100 µW/VDE

Die strahlung an der lasereinheit ist ungefährlich, wenn folgende punkte beachtet werden:

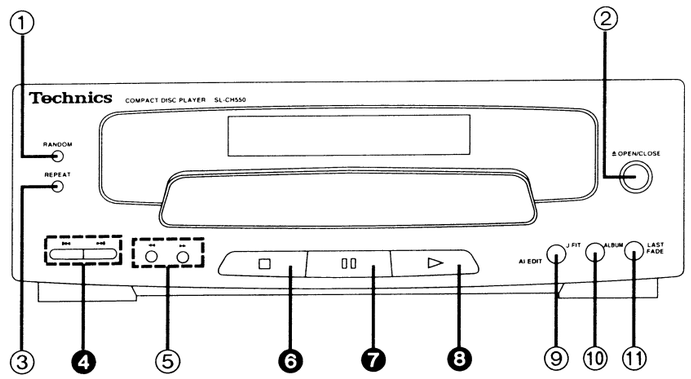
1. Die lasereinheit nicht zerlegen, da die strahlung an der freigelegten laserdiode gefährlich ist.
2. Den werksseitig justierten einstellregler der lasereinreit nicht verstellen.
3. Nicht mit optischen instrumenten in die fokussierlinse blicken.
4. Nicht über längere zeit in die fokussierlinse blicken.




ADVARSEL: USYNLIG LASERSTRÅLING VED ÅBNING, NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSÆTTELSE FOR STRÅLING.
VARO! Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen.
VORSICHT-Unsichtbare Laserstrahlung, wenn Abdeckung geöffnet. Nicht dem Strahl aussetzen.
DANGER-Invisible laser radiation when open. AVOID DIRECT EXPOSURE TO BEAM.
VARNING! Osynlig laserstrålning när denna del är öppnad och spärren är urkopplad. Betrakta ej strålen.

NOTES:
Refer to the service manual for Model No. SA-CH550, Order No. AD9208265C8 for information on ACCESSORIES, STACKING THE COMPONENTS, CONNECTIONS and PACKAGING.

■ LOCATION OF CONTROLS



① **Random play button (RANDOM)**
Press to play the disc's tracks in random order.

② **Disc tray open/close button (▲ OPEN/CLOSE)**
Press to open and close the disc tray.

③ **Repeat button (REPEAT)**
Press to activate the repeat mode.

❹ **Skip buttons (|◀◀, ▶▶|)**
Press to skip tracks.

⑤ **Search buttons (◀◀, ▶▶)**
Press and hold to find the desired point on the track while in the play mode.

❻ **Stop button (□)**
Press to stop the disc play.

❼ **Pause button (▯▯)**
Press to stop the disc play temporarily.

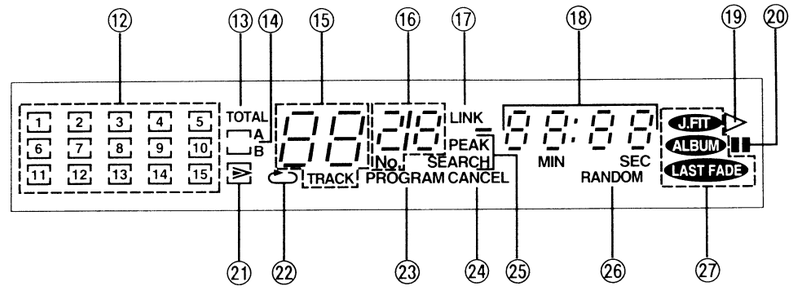
❽ **Play button (▷)**
Press to start disc play and synchro start function.

⑨ **Fit edit button (J. FIT)**
Press to activate the fit editing mode.

⑩ **Sequential CD recording button (ALBUM)**
Press to activate the sequential CD recording mode.

⑪ **Last fade edit button (LAST FADE)**
Press to activate the fade out editing mode.

●Display section



⑫ **Matrix display**
Shows the total number of tracks on a disc, and shows the current playing track by flashing.

⑬ **Total tracks indicator (TOTAL)**
Lights to show the total number of tracks edited on side A and B when you use the edit-recording from a compact disc.

⑭ **Tape side indicator (A, B)**
Shows which side of the cassette tape (A or B) will be recorded on when you use the edit-recording from a compact disc.

⑮ **Track number display**
Shows the total number of tracks, and current playing or recording track number.

⑯ **Program number display (No.)**
Lights together with the program indicator to show the programmed order.

⑰ **Link indicator (LINK)**
Lights to show the disc link is possible when you use the edit-recording from a compact disc.

⑱ **Time display**
Shows the total playing time on the disc, and elapsed play time of the current track.

⑲ **Play indicator (▷)**
Lights when you play a compact disc.

⑳ **Pause indicator (▮▮)**
Lights when you press the pause button to stop the disc play temporarily.

㉑ **Over indicator (➢)**
Lights if there are 16 or more tracks on a disc.

㉒ **Repeat mode indicator (⮌)**
Lights during the repeat mode of a compact disc.

㉓ **Program indicator (PROGRAM)**
Lights during program play mode of a compact disc.

㉔ **Program cancel indicator (CANCEL)**
Lights when you cancel a program.

㉕ **Peak search indicator (PEAK SEARCH)**
In the edit-recording mode, lights when the compact disc player is automatically scanning the peak level on a disc. When peak search ends, "PEAK" flashes to indicate the peak level of a compact disc.

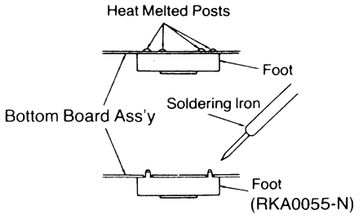
㉖ **Random play indicator (RANDOM)**
Lights during the random play mode.

㉗ **Edit mode indicators (J. FIT, ALBUM, LAST FADE)**
J.FIT: Lights when you activate the fit editing mode.
ALBUM: Lights when you activate the sequential CD recording mode.
LAST FADE: Lights when you activate the fade out editing mode.

Note:
The functions indicated by the numbers with black background (for example ❹) can also be activated from the remote control.

●Replacement of the Foot

1. Remove the 4 heat melted posts on the bottom board ass'y with a pair of nippers or similar tool.
2. To replace the foot (RKA0055-N) on the bottom board ass'y, melt the 4 posts with a soldering iron.



■ DISASSEMBLY INSTRUCTIONS

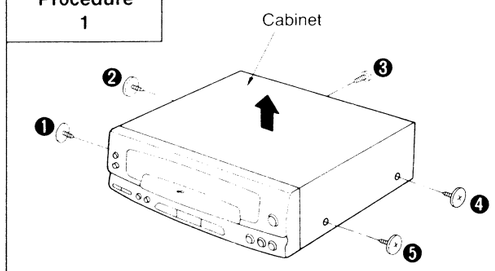
Warning: This product uses a laser diode. Refer to caution statements on page 2.
ACHTUNG: Die lasereinheit nicht zerlegen.
Die lasereilnheit darf nur gegen eine vom hersteller spezifizierte einheit ausgetauscht werden.

"ATTENTION SERVICER"

Some chassis components may have sharp edges. Be careful when disassembling and servicing.

Ref. No. 1 — **Removal of the Cabinet**

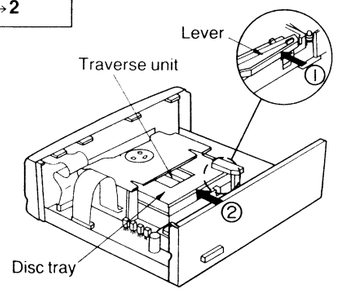
Procedure 1



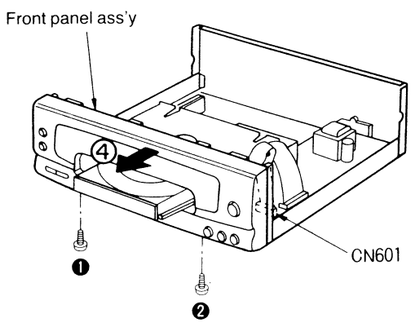
1. Remove the 5 screws (❶~❺).
2. Remove the cabinet in the direction of arrow.

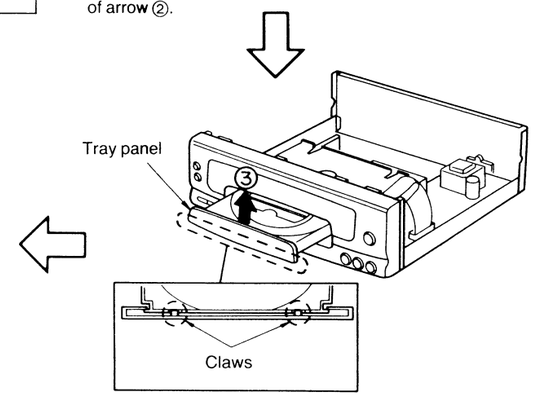
Ref. No. 2 — **Removal of the Front Panel Ass'y**

Procedure 1→2



1. Push the lever in the direction of arrow ① until the traverse unit goes down and then push the disc tray in the direction of arrow ②.



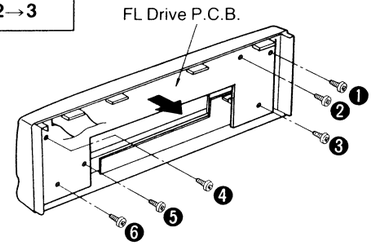


3. Remove the 1 connector (CN601).
4. Remove the 2 screws (❶, ❷).
5. Remove the front panel ass'y in the direction of arrow ④.

2. Remove the 2 claws and then remove the tray panel in the direction of arrow ③.

Ref. No. 3 — **Removal of the FL Drive P.C.B.**

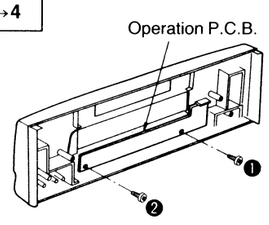
Procedure 1→2→3



1. Remove the 6 screws (❶~❻).
2. Remove the FL drive P.C.B. in the direction of arrow.

Ref. No. 4 — **Removal of the Operation P.C.B.**

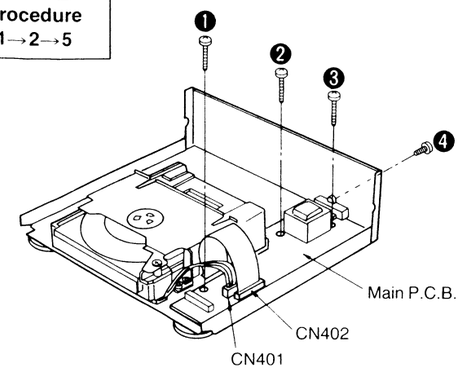
Procedure 1→2→3→4



•Remove the 2 screws (❶, ❷).

Ref. No. 5 — **Removal of the Main P.C.B.**

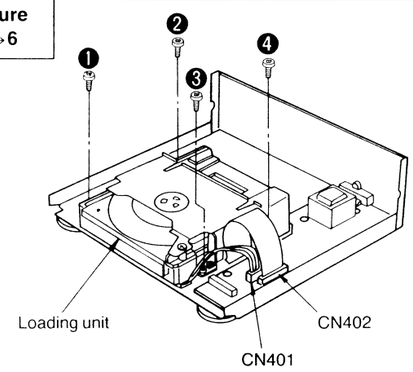
Procedure 1→2→5



1. Remove the 2 connectors (CN401, CN402).
2. Remove the 4 screws (❶~❹).

Ref. No. 6 — **Removal of the Loading Unit**

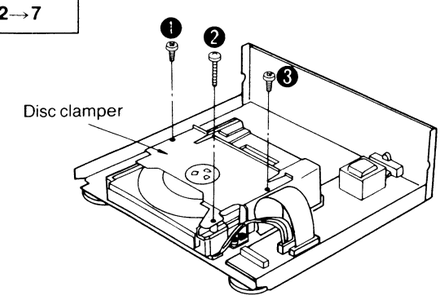
Procedure 1→2→6



1. Remove the 2 connectors (CN401, CN402).
2. Remove the 4 screws (❶~❹).

Ref. No. 7 — **Removal of the Disc Clamper**

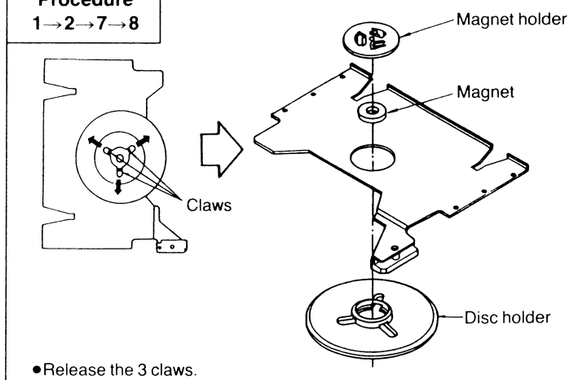
Procedure 1→2→7



•Remove the 3 screws (❶~❸).

Ref. No. 8 — **Removal of the Magnet Holder, Magnet and Disc Holder**

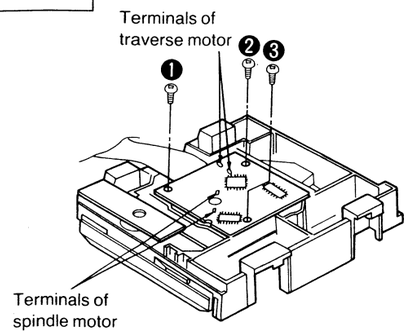
Procedure 1→2→7→8



•Release the 3 claws.

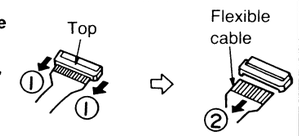
Ref. No. 9 — **Removal of the Servo P.C.B.**

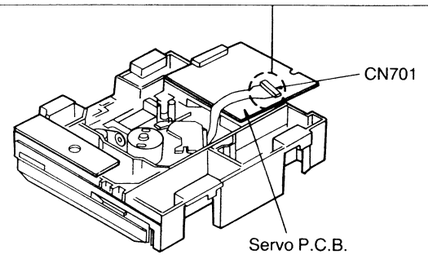
Procedure 1→2→6→9



1. Remove the 2 screws (❶~❸).
2. Unsolder the 2 terminals of spindle motor.
3. Unsolder the 2 terminals of traverse motor.

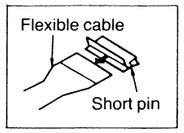
•Removal of the flexible cable
Push the top of the connector in the direction of the arrow ①, and then Pull Out the flexible cable in the direction of the arrow ②.





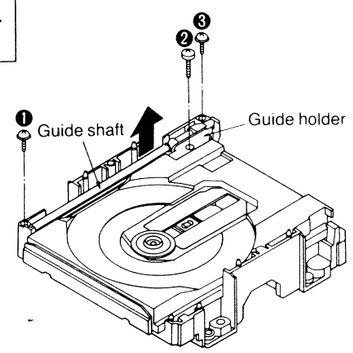
4. Remove the flexible cable (CN701).

Note:
Insert a short pin into the traverse unit flexible cable.



Ref. No. 10 — Removal of the Guide Shaft and Guide Holder

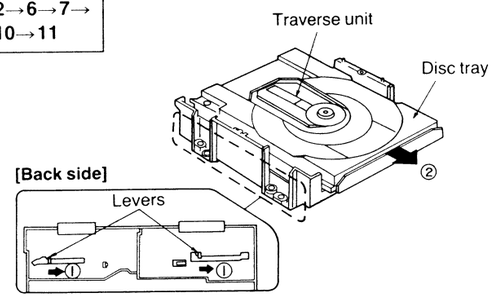
Procedure 1→2→6→7→10



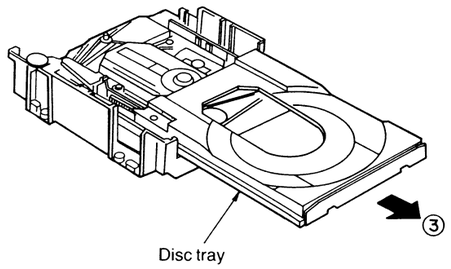
1. Remove the 3 screws (❶~❸).
2. Remove the guide shaft and guide holder in the direction of arrow.

Ref. No. 11 — Removal of the Disc Tray

Procedure 1→2→6→7→10→11



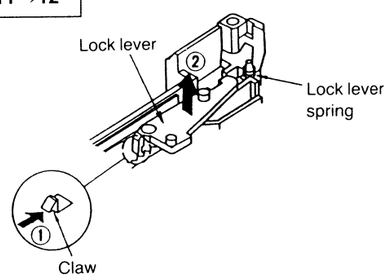
1. Push the 2 levers in the direction of arrow ① until the traverse unit goes down and the disc tray slightly in the direction of arrow ②.



2. Remove the disc tray in the direction of arrow. ③.

Ref. No. 12 — Removal of the Lock Lever

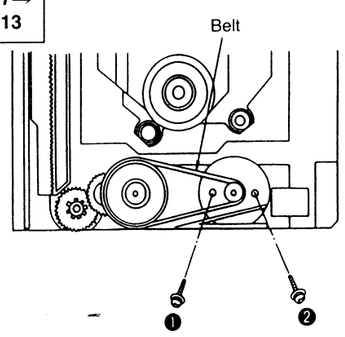
Procedure 1→2→6→7→10→11→12



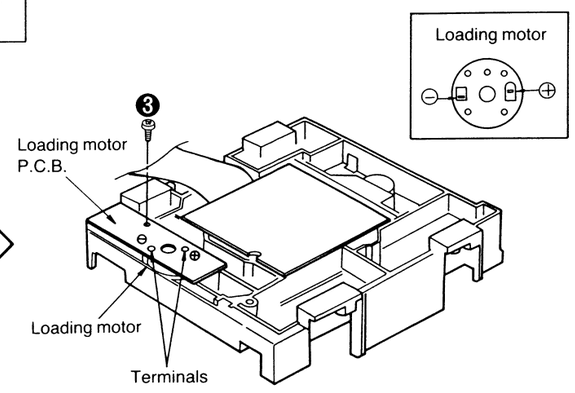
1. Remove the lock lever spring.
2. Release the claw in the direction of the arrow ①, and then remove the lock lever in the direction of arrow ②.

Ref. No. 13 — Removal of the Loading Motor P.C.B. and Loading Motor

Procedure 1→2→6→7→10→11→13



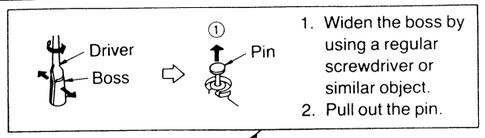
1. Remove the belt.
2. Remove the 2 screws (❶, ❷).



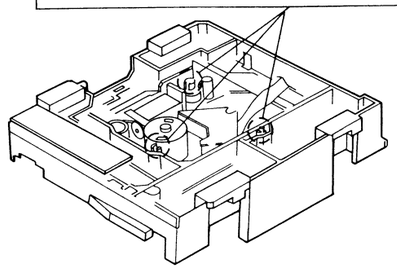
3. Remove the 1 screw (❸).
4. Unsolder the 2 terminals of loading motor.

Ref. No. 14 — Removal of the Traverse Unit

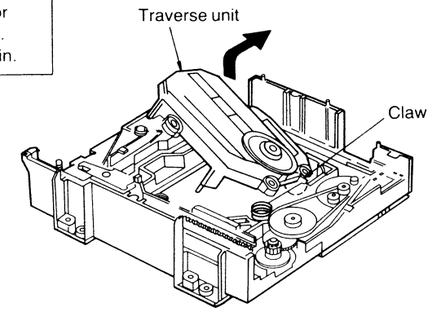
Procedure 1→2→6→7→9→10→11→14



1. Widen the boss by using a regular screwdriver or similar object.
2. Pull out the pin.



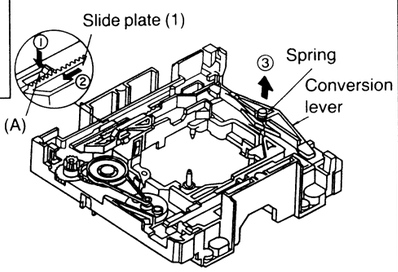
1. Remove the 3 pins in the direction of arrow ①.



2. Release the claw and then remove the traverse unit in the direction of arrow.

Ref. No. 15 — Removal of the Conversion Lever

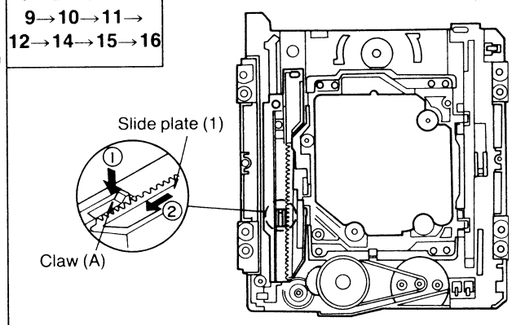
Procedure 1→2→6→7→9→10→11→12→14→15



1. Remove the spring.
2. Push the claw (A) in the direction of arrow ①, and then move the slide plate (1) in the direction of arrow ②.
3. Remove the conversion lever in the direction of arrow ③.

Ref. No. 16 — Removal of the Traverse Chassis

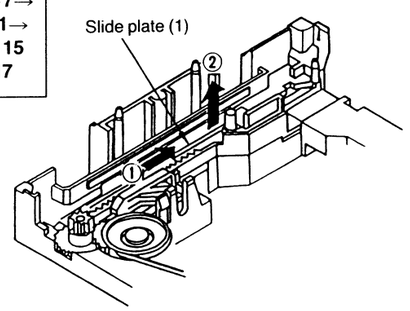
Procedure 1→2→6→7→9→10→11→12→14→15→16



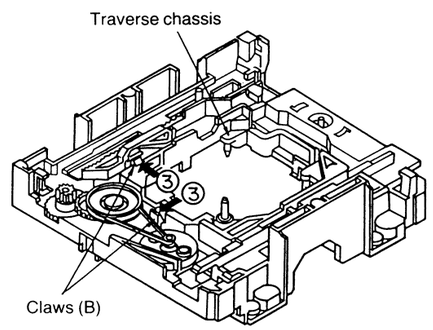
1. Push the claw (A) in the direction of arrow ①, and then move the slide plate (1) in the direction of arrow ②.

Ref. No. 17 — Removal of the Slide Plate (1)

Procedure 1→2→6→7→9→10→11→12→14→15→16→17

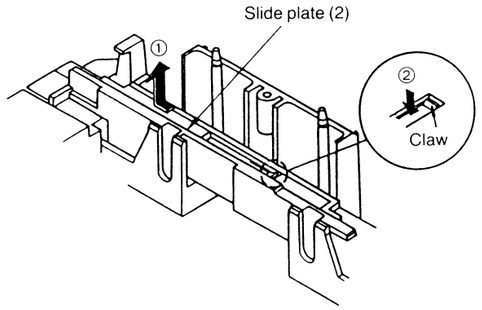


•Move the slide plate (1) in the direction of the arrow ①, and remove the slide plate (1) in the direction of the arrow ②.



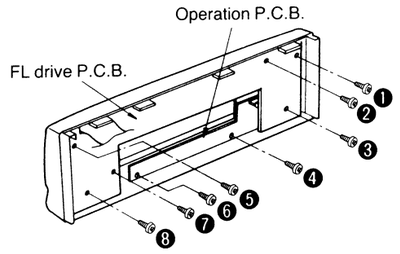
2. Push 2 claws (B) in the direction of arrow ③, and then remove the traverse chassis.

Ref. No. 18	Removal of the Slide Plate (2)
Procedure 1→2→6→7→ 9→10→11→ 12→14→15→ 16→18	

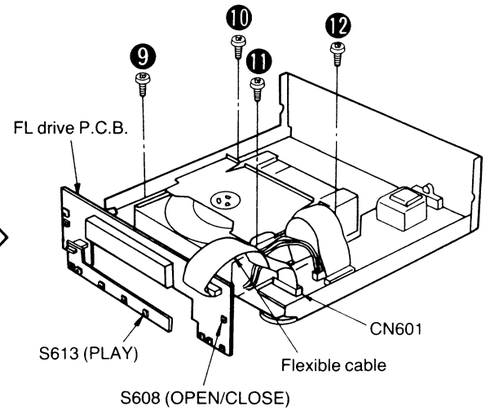


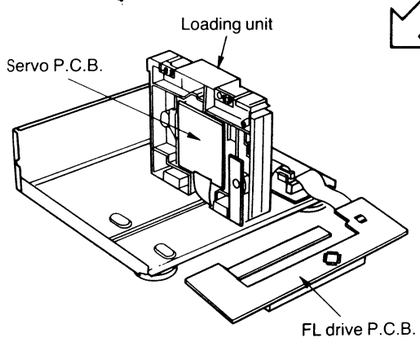
- Push the claw in the direction of the arrow ①, and remove the slide plate (2) in the direction of the arrow ②.

Ref. No. 19	How to check the FL Drive P.C.B. and Servo P.C.B.
Procedure 1→2→19	



1. Remove the 8 screws (❶~❽).
2. Remove the FL drive P.C.B. and operation P.C.B.





3. Remove the 4 screws (❾~⓬).
4. Connect the flexible cable to connector (CN601).

Note:
Make sure not to damage the flexible cable.

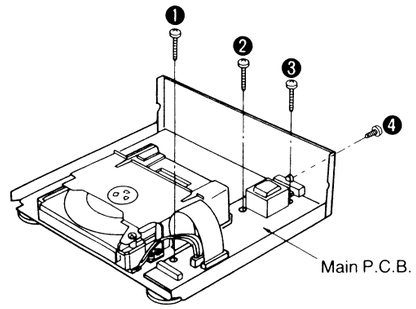
5. Place the loading unit sideways as shown above.
6. When checking the solder surface of the operation P.C.B. and servo P.C.B., do as shown above.

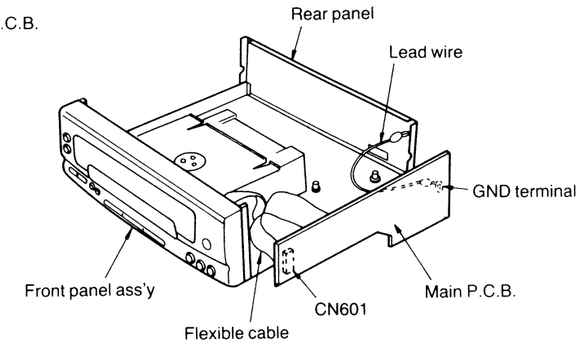
To play a disc

1. Push the S608 (OPEN/CLOSE) switch so that the loading unit comes up.
2. Playing the test disc on the tray. Then, push the S608 (OPEN/CLOSE) switch to set the test disc.
3. Push the S613 (PLAY) switch to start the disc play.

Ref. No. 20	How to check the Main P.C.B.
Procedure 1→2→20	

- When checking the soldered surfaces of main P.C.B. and replacing the parts, do as show.

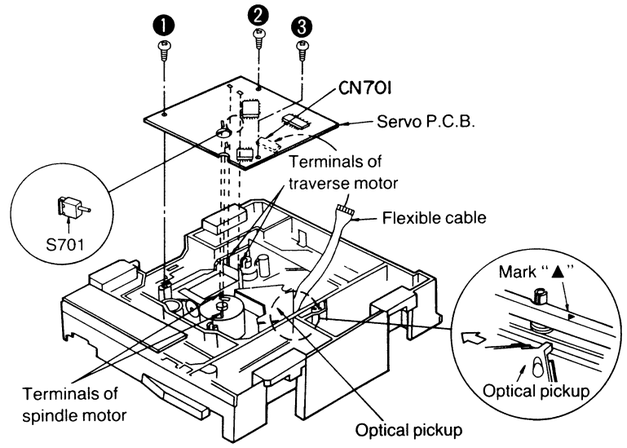




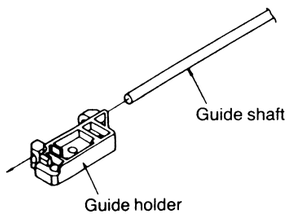
1. Remove the 4 screws (❶~❹).
2. Remove the main P.C.B. and then stand the main P.C.B. at the side of unit.
3. Reinstall the front panel ass'y to the unit and then connect the flexible cable (CN601).
4. Connect the GND terminal to the rear panel by the lead wire.

■ INSTALLING SERVO P.C.B.

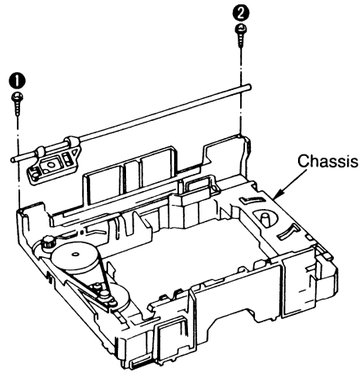
1. Before installing the servo P.C.B., move the optical pickup toward the outer edge from the mark "▲". Otherwise, the rest switch (S701) mounted on the servo P.C.B. may be damaged.
2. Connect the flexible cable to the connector (CN701).
3. Install the servo P.C.B. in the traverse unit with the three screws (❶~❸).
4. Solder the two terminals of the traverse motor and the two terminals of the spindle motor.



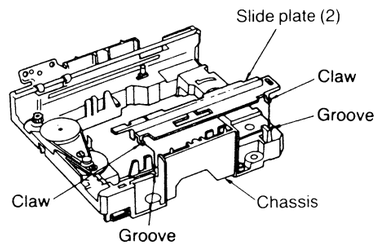
■ INSTALLING OF GUIDE SHAFT



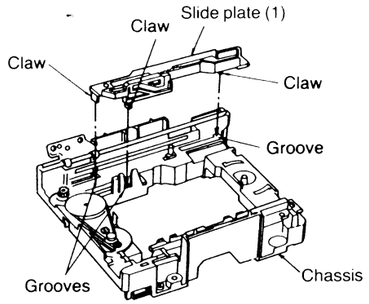
1. Insert the guide shaft into the guide holder.
2. Install the guide shaft on the chassis with the 2 screws (❶, ❷).



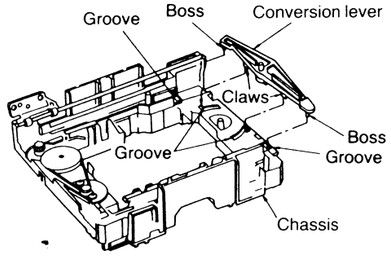
■ CD UNIT ASSEMBLY



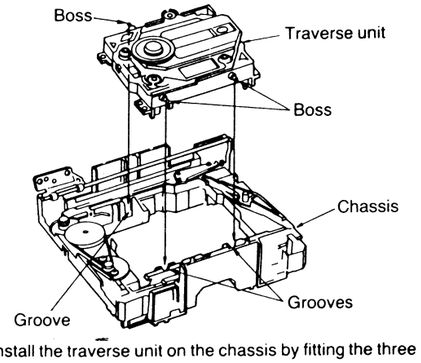
1. Install Slide plate (2) on the chassis by fitting the claws of Slide plate (2) in the two grooves of the chassis.



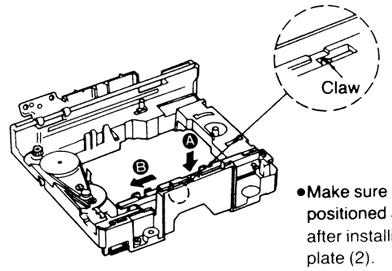
3. Install Slide plate (1) on the chassis by fitting the claws of Slide plate (1) in the three grooves of the chassis as shown above.



6. Install Conversion lever on the chassis by fitting the two claws of Conversion lever in the two grooves of the chassis and the two bosses in the two grooves as shown above.

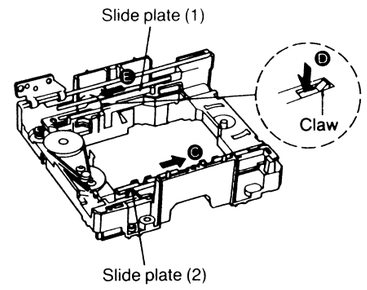


9. Install the traverse unit on the chassis by fitting the three bosses of the traverse unit in the three grooves of the chassis.

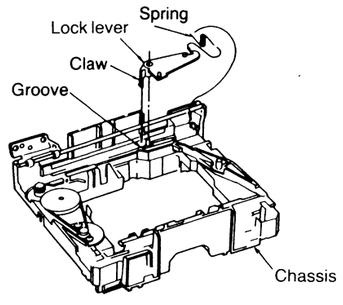


- Make sure that the claw is positioned as shown above after installing Slide plate (2).

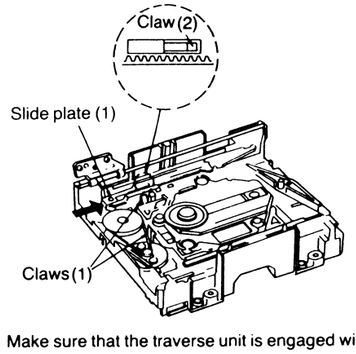
2. Slide plate (2) in the direction of arrow Ⓑ while keeping it held down lightly in the direction of arrow Ⓐ.



4. Slide plate (1) fully in the direction of arrow Ⓒ.
5. Keep holding down the claw in the direction of arrow Ⓓ and slide plate (1) in the direction of arrow Ⓔ to stop. (Slide but very little.)



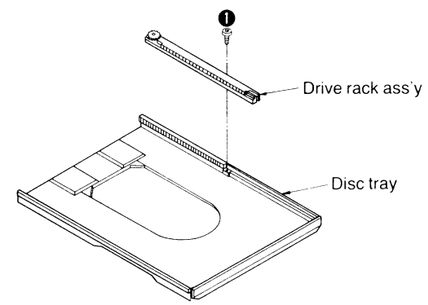
7. Install Lock lever on the chassis by fitting the claw of Lock lever in the groove of the chassis.
8. Install the spring on Lock lever and the chassis.



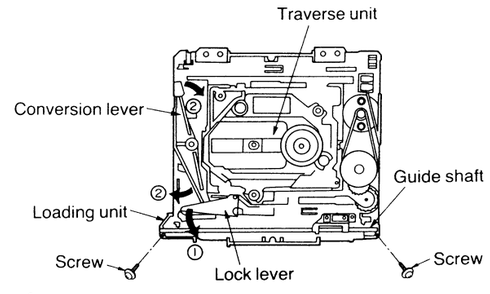
10. Make sure that the traverse unit is engaged with the two claws (1).
11. Slide plate (1) in the direction of the arrow. Be sure to check if claw (2) is set as shown above. [Slide plate (1) but very little.]

■ INSTALLING DISC TRAY UNIT

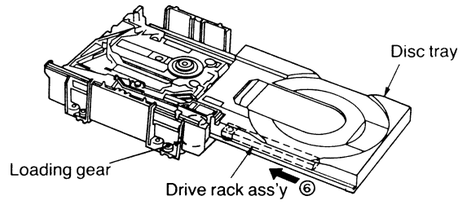
- Install the drive rack ass'y on the disc tray with the screw ❶.



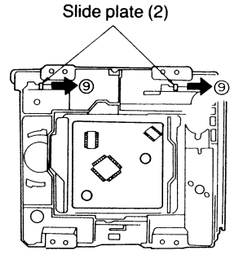
■ INSTALLING DISC TRAY

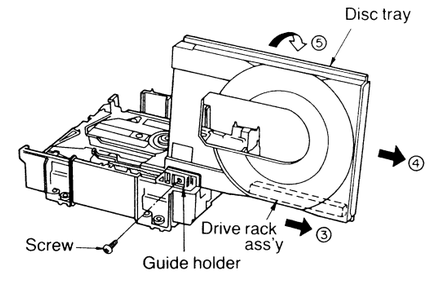


1. Move Lock lever in the direction of arrow ① and Conversion lever in the direction of arrow ②. (The traverse unit rises.)
2. Install the guide shaft on the loading unit.

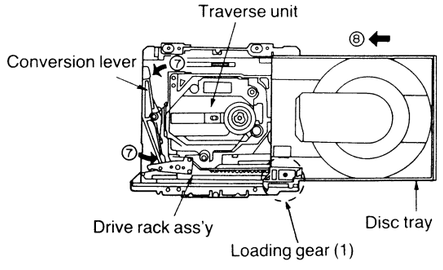


7. Slide the drive rack ass'y in the direction of arrow ⑥.
8. Hold the disc tray and slide the under tray fully in the direction of arrow ⑥. (Slide but very little and the loading gear is engaged with drive rack ass'y.)

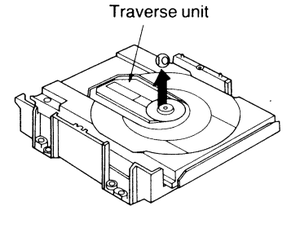




3. Install the disc tray on the guide holder with the screw as shown above.
4. Slide the drive rack ass'y fully in the direction of arrow ③.
5. Slide the disc tray fully in the direction of arrow ④.
6. Lay the disc tray down in the direction of arrow ⑤.



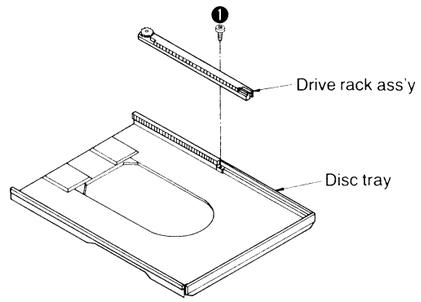
9. Slide the Conversion lever fully in the direction of arrow ⑦, and the drive rack ass'y engages with the Loading gear (1). (The traverse unit is lowered.)
10. Slide the disc tray in the direction of arrow ⑧.



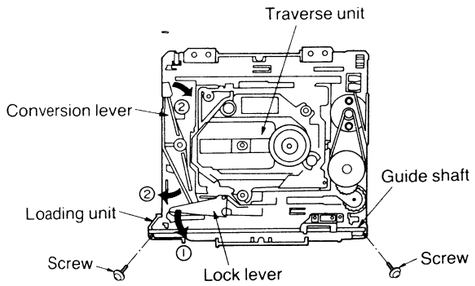
11. Slide the Slide plate (2) in the direction of arrow ⑨ and check if the traverse unit rises in the direction of arrow ⑩.

■ INSTALLING DISC TRAY UNIT

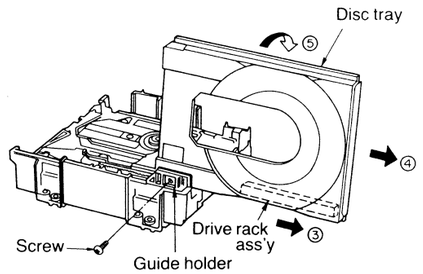
●Install the drive rack ass'y on the disc tray with the screw ❶.



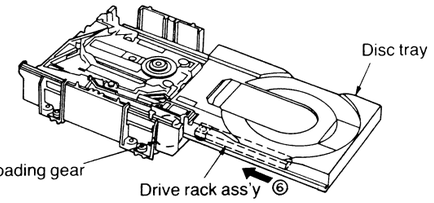
■ INSTALLING DISC TRAY



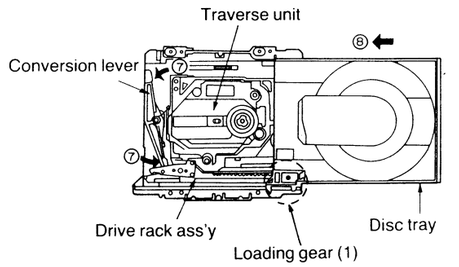
1. Move Lock lever in the direction of arrow ① and Conversion lever in the direction of arrow ②. (The traverse unit rises.)
2. Install the guide shaft on the loading unit.



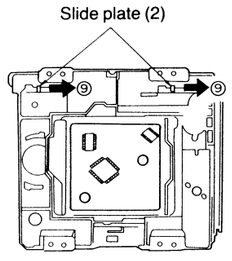
3. Install the disc tray on the guide holder with the screw as shown above.
4. Slide the drive rack ass'y fully in the direction of arrow ③.
5. Slide the disc tray fully in the direction of arrow ④.
6. Lay the disc tray down in the direction of arrow ⑤.

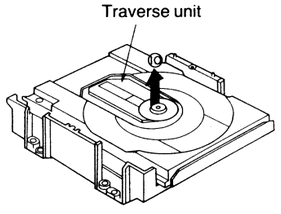


7. Slide the drive rack ass'y in the direction of arrow ⑥.
8. Hold the disc tray and slide the under tray fully in the direction of arrow ⑥. (Slide but very little and the loading gear is engaged with drive rack ass'y.)



9. Slide the Conversion lever fully in the direction of arrow ⑦, and the drive rack ass'y engages with the Loading gear (1). (The traverse unit is lowered.)
10. Slide the disc tray in the direction of arrow ⑧.

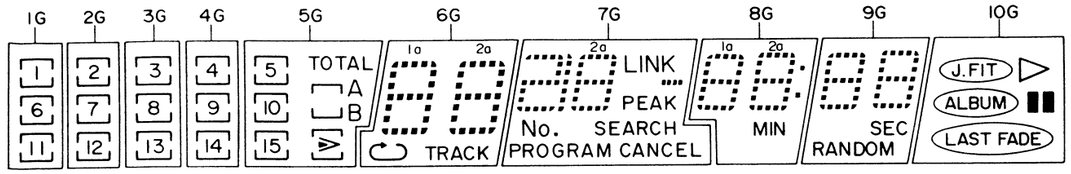


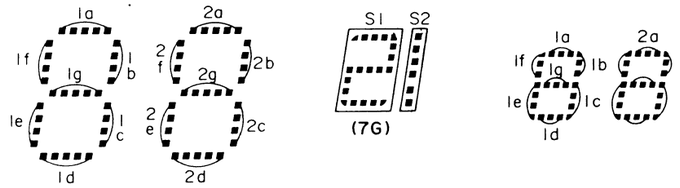


11. Slide the Slide plate (2) in the direction of arrow ⑨ and check if the traverse unit rises in the direction of arrow ⑩.

■ DESCRIPTION OF FL PANEL (FL601: RSL0127-F)

●Grid assigment





●Pin connection

Pin No.	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
Terminal Name	PI3	PI2	PI1	PI0	P9	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	P8	P7	P6	P5	P4	P3	P2	P1	NP	NP	F1	F1

Pin No.	54	53	52	51	50	49	48	47	46	45	44	43	42	41	40	39	38	37	36
Terminal Name	F2	F2	NP	NP	NC	NC	IG	2G	3G	4G	5G	6G	7G	8G	9G	10G	PI6	PI5	PI4

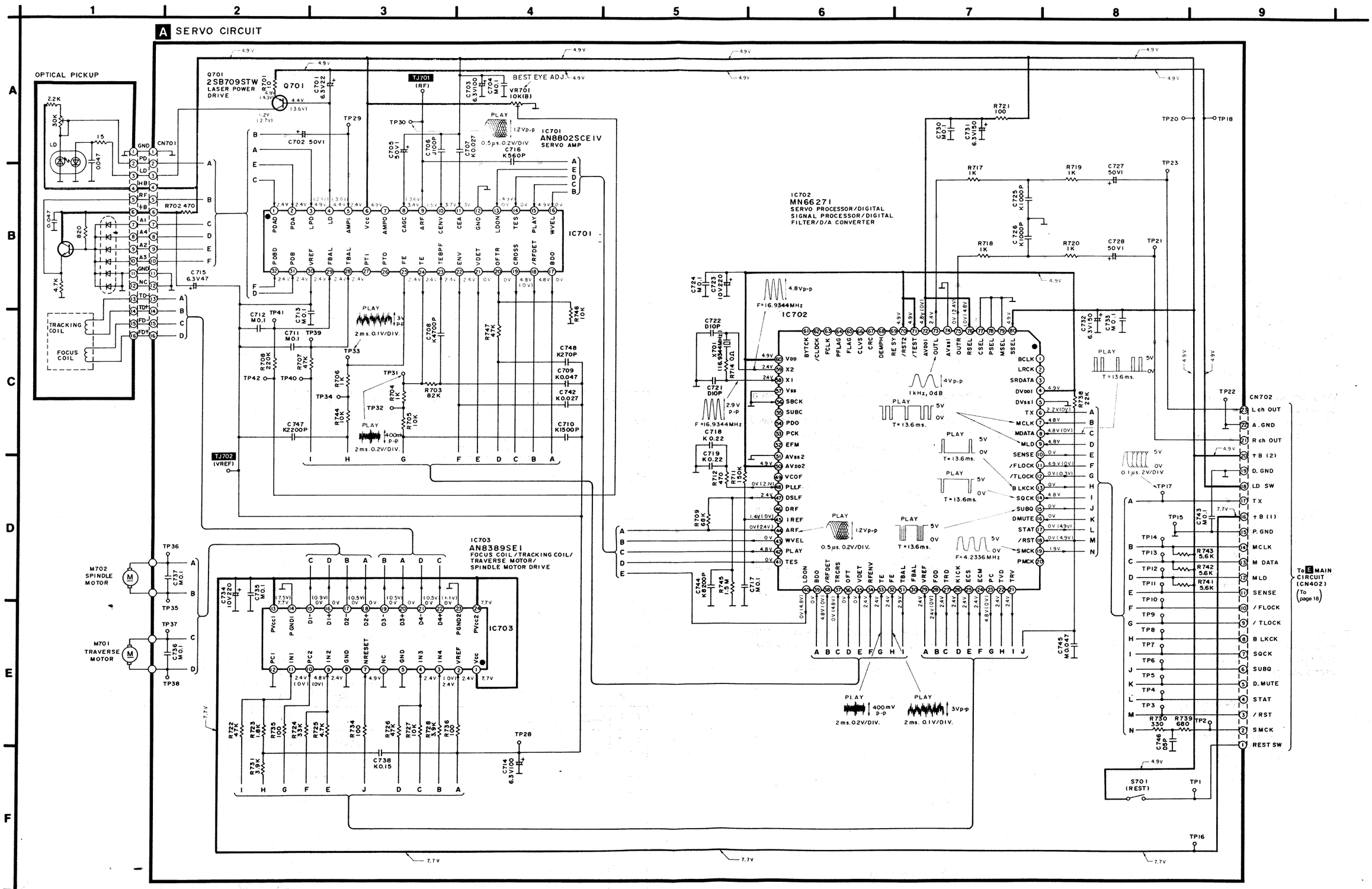
Notes:
F1, F2 . . . . . Filament
NP . . . . . No pin
NX, NC . . . . No connection
1G~10G . . Grid

●Anode connection

	1G	2G	3G	4G	5G	6G	7G	8G	9G	10G
P 1	(1)	(2)	(3)	(4)	(5)	1a	S1	1a	1a	–
P 2	1	2	3	4	5	1f	S2	1f	1f	–
P 3	(1)	(2)	(3)	(4)	(5)	1b	LINK	1b	1b	–
P 4	(6)	(7)	(8)	(9)	(10)	1g	–	1g	1g	–
P 5	6	7	8	9	10	1e	No.	1e	1e	–
P 6	(6)	(7)	(8)	(9)	(10)	1c	PEAK	1c	1c	–
P 7	(11)	(12)	(13)	(14)	(15)	1d	SEARCH	1d	1d	–
P 8	11	12	13	14	15	2a	2a	2a	2a	–
P 9	(11)	(12)	(13)	(14)	(15)	2f	2f	2f	2f	–
P10	–	–	–	–	TOTAL	2b	2b	2b	2b	–
P11	–	–	–	–	(A)	2g	2g	2g	2g	–
P12	–	–	–	–	A B	2e	2e	2e	2e	▷
P13	–	–	–	–	(B)	2c	2c	2c	2c	▯▯
P14	–	–	–	–	(▷)	2d	2d	2d	2d	ALBUM
P15	–	–	–	–	▷	↻	PROGRAM	▫ ▫	RANDOM	J.FIT
P16	–	–	–	–	(▷)	TRACK	CANCEL	MIN	SEC	LAST FADE

SL-CH550

■ SCHEMATIC DIAGRAM •OPTICAL PICKUP AND SERVO CIRCUIT (Parts list on pages 35~38.)



Notes:

- •S601
- •S602
- •S603
- •S604
- •S605
- •S606
- •S607
- •S608
- •S609
- •S610
- •S611
- •S612
- •S613
- •S701
- •S790
- •S791
- •Indicated chassis t Therefor

N

- •Importar Compon Furtherm are used

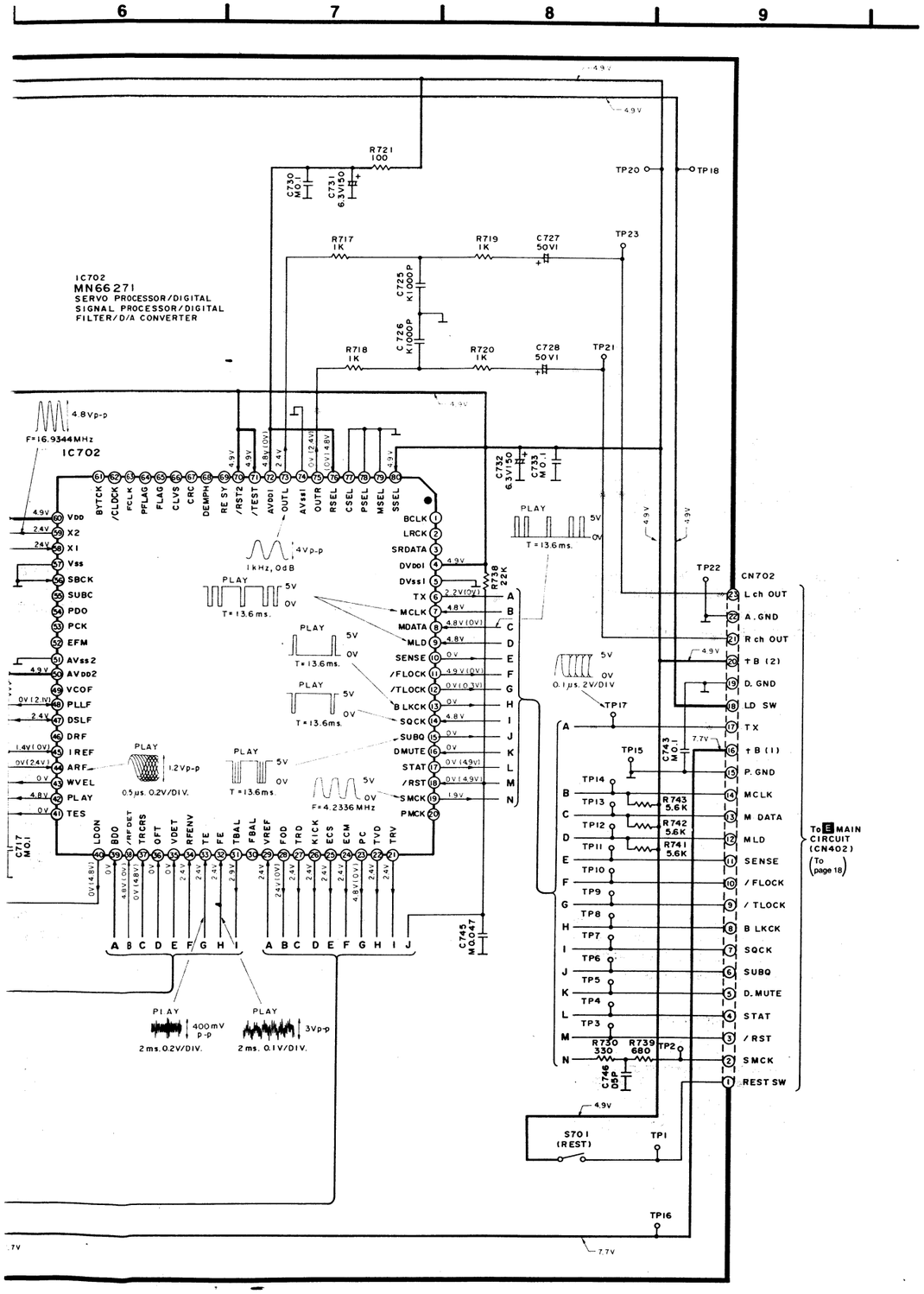
Caution!
IC and LS Secondary

- •Cover th
- •Ground t
- •Put a cor
- •Do not to

•This sch

- •The supp

Ref. No
IC1
IC801



Notes:

- ●S601 : R. Skip switch (|◀◀)
- ●S602 : F. Skip switch (▶▶|)
- ●S603 : Repeat switch (REPEAT)
- ●S604 : Random play switch (RANDOM)
- ●S605 : Last fade edit switch (LAST FADE)
- ●S606 : Sequential CD recording switch (ALBUM)
- ●S607 : Fit edit switch (J. FIT)
- ●S608 : Disc tray open/close switch (▲ OPEN/CLOSE)
- ●S609 : R. Search switch (◀◀)
- ●S610 : F. Search switch (▶▶)
- ●S611 : Stop switch (□)
- ●S612 : Pause switch (▯▯)
- ●S613 : Play switch (▷)
- ●S701 : Rest switch
- ●S790 : Disc tray close detection switch
- ●S791 : Disc tray open detection switch

●Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard.
Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.

No mark: CD stop ( ): CD PLAY (1 kHz, L+R, 0 dB)

●Important safety notice:
Components identified by ⚠ mark have special characteristics important for safety.
Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

Caution!
IC and LSI are sensitive to static electricity.
Secondary trouble can be prevented by taking care during repair.
- ●Cover the parts boxes made of plastics with aluminum coil.
- ●Ground the soldering iron.
- ●Put a conductive mat on the work table.
- ●Do not touch the legs of IC or LSI with the fingers directly.

●This schematic diagram may be modified at any time with the development of new technology.

●The supply part number is described alone in the replacement parts list.

Ref. No	Production Parts No.	Supply Parts No.
IC1	LM2940T5M	LM2940T5
IC801	BA4558FT1	SVIBA4558F

▬▬ : Positive voltage line
▬ ▬ ▬ : Negative voltage line
: CD signal line

■ SCHEMATIC DIAGRAM •FL DRIVE, LOADING MOTOR, OPERATION AND MAIN CIRCUIT (Parts list on pages 35~38.)

B FL DRIVE CIRCUIT

C OPERATION CIRCUIT

D LOADING MOTOR CIRCUIT

E MAIN CIRCUIT

~38.)

7 8 9 10 11 12 13 14

OR CIRCUIT

To A SERVO CIRCUIT(CN702) (To page 15)

CN402

R415 56
R414 1K
C403 K1000P
C405 K1000P
C404 Z0.01
C402 K1000P

CP790 CN401

S790 (CLOSE DET.)
S791 (OPEN DET.)
DING MOTOR

IC1 LM2940T5M REGULATOR

Q4,5 2SD2037EFTA REGULATOR

Q1 2SB1238QSTV6 REGULATOR

Q5 Q4 Q3 Q2 Q1

D18 ISR35200TB

R27 1.2
R26 1.2
R11 1.2
C10 10V220
C8 63V220
C11 K1000P

R13 1/4W6.8
R12 1/2W270
D14 MA4068TA
C12 10V220

D13 MA165TA
C5 K1000P
R7 5.6K
C6 50V100
R24 470
D12 MA4300MTA
C7 Z1000P

R8 8.2
R9 6.8
AC42V
AC74V
PTI

R3 4.7K
D8 MA165TA
D6 MA165TA
D10 MA4056MTA

D1 MA167TA R1 5.6K
D2 MA167TA R2 5.6K
D3 ISR35200TB
D4 ISR35200TB
D5 ISR35200TB

R5 0.15

L3 3.3μH
L4 3.3μH

JK801
1 AC
2 BUS CLK
3 CT GND
4 BUS DATA
5 AC
6 DC GND
7 —
8 —
9 —
10 —
11 —
12 —
13 Rch LINE OUT
14 A.GND
15 Lch LINE OUT

To SA-CH550: JK201
RS-CH550: JK1

AC
CT
POWER SUPPLY POINT

Q8 2SC3311AQSTA REGULATOR

Q10 UN4112TA SWITCHING CONTROL

R20 1/4W6.8
C1 16V2200
C2 25V1000
C3 Z0.01
C4 Z0.01
AC12V
CT

C16 6.3V47
C17 6.3V47
C18 6.3V47
C19 6.3V47
C20 6.3V47
C21 K1000P
D16 MA4068TA
D17 MA4068TA
R19 3.3K
R22 3.3K
R21 10K
R23 120

Q9 2SA1309AQSTA REGULATOR

C801 K330P
C802 K330P
C803 K120P
C804 K120P
C805 25V22
C806 25V22
R809 3.3K
R810 3.3K
R803 22K
R804 22K
R805 22K
R806 22K
R807 27K
R808 27K
R801 100K
R802 100K
R811 100K
R812 100K
R813 100K
R814 100K
R815 1K
R816 1K

IC801 BA4558FTI L.P.FILTER AMP

IC802 TC4066BFTPI SWITCHING

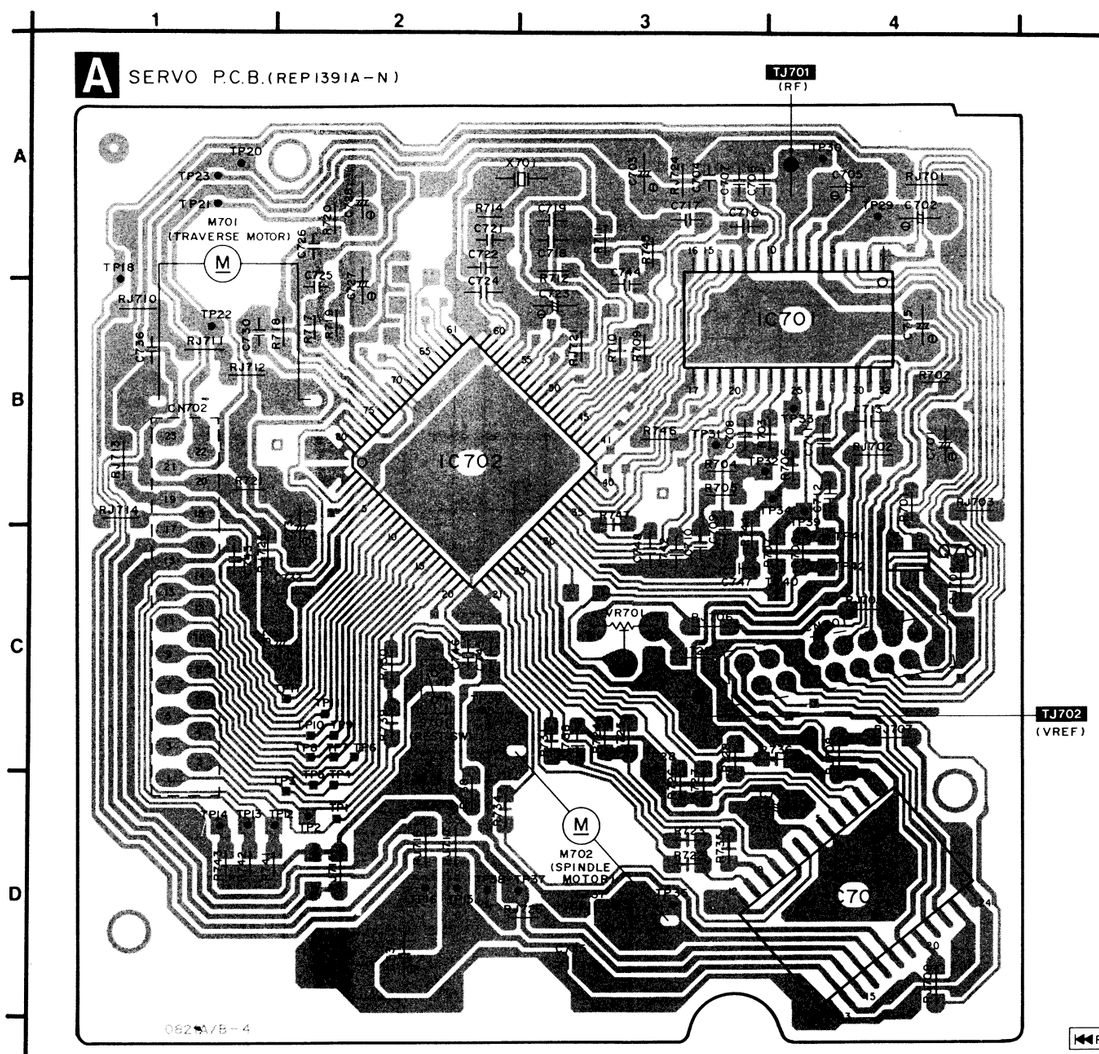
E1

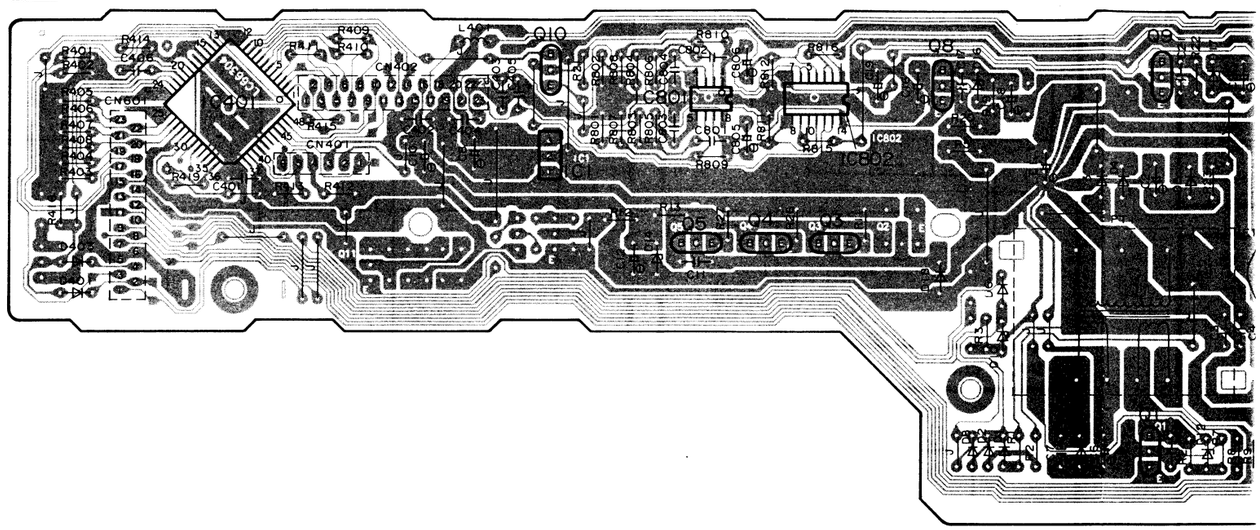
IC401 LC66304A4935 SYSTEM CONTROL

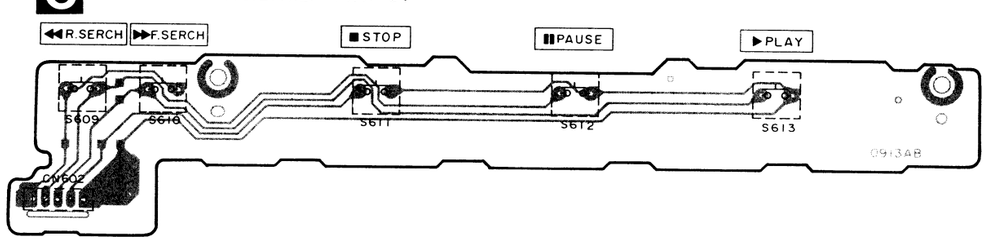
PLAY 5V 0V T=13.6ms
F=7.75Hz
T=7ms.
F=4.2336MHz
2.4V P-P

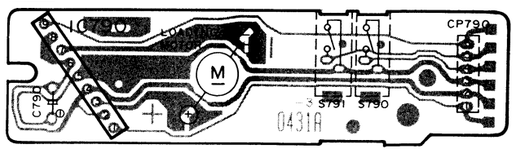
R401 4.7K
R402 4.7K
R403 4.7K
R404 4.7K
R405 4.7K
R406 4.7K
R407 4.7K
R408 4.7K
R409 4.7K
R410 1K
R411 4.7K
R412 10K
R413 10K
R418 100K
R419 4.7K
R416 100K
C401 Z0.01
C406 Z0.01
D401 MA165TA
D403 MA165TA

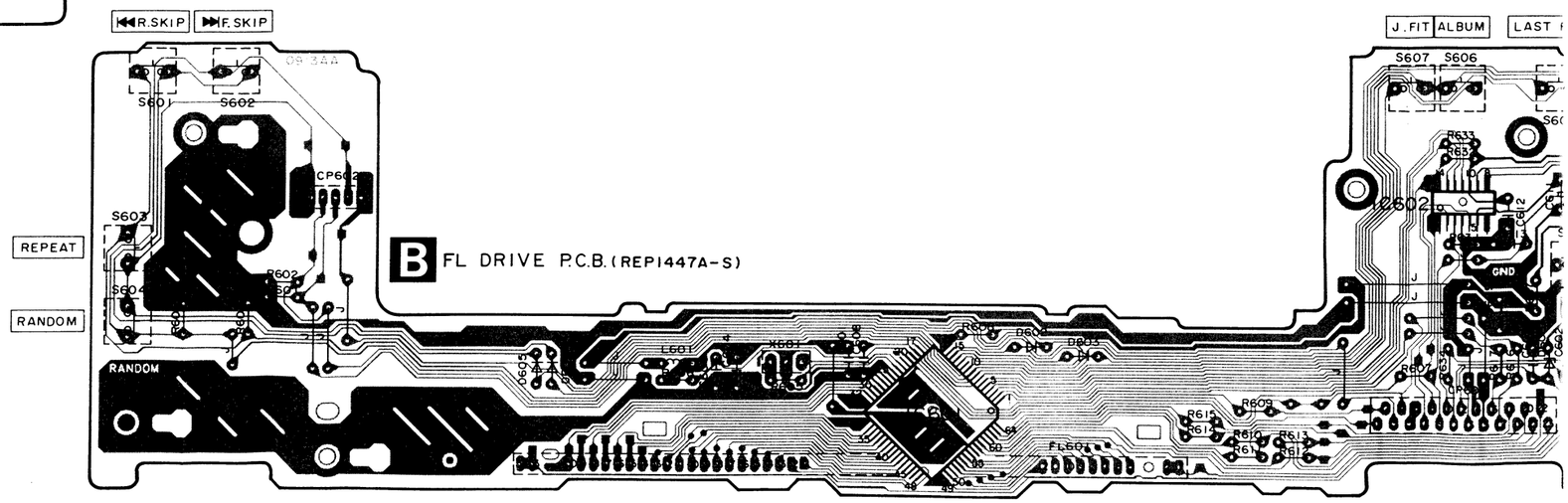
■ PRINTED CIRCUIT BOARD DIAGRAM





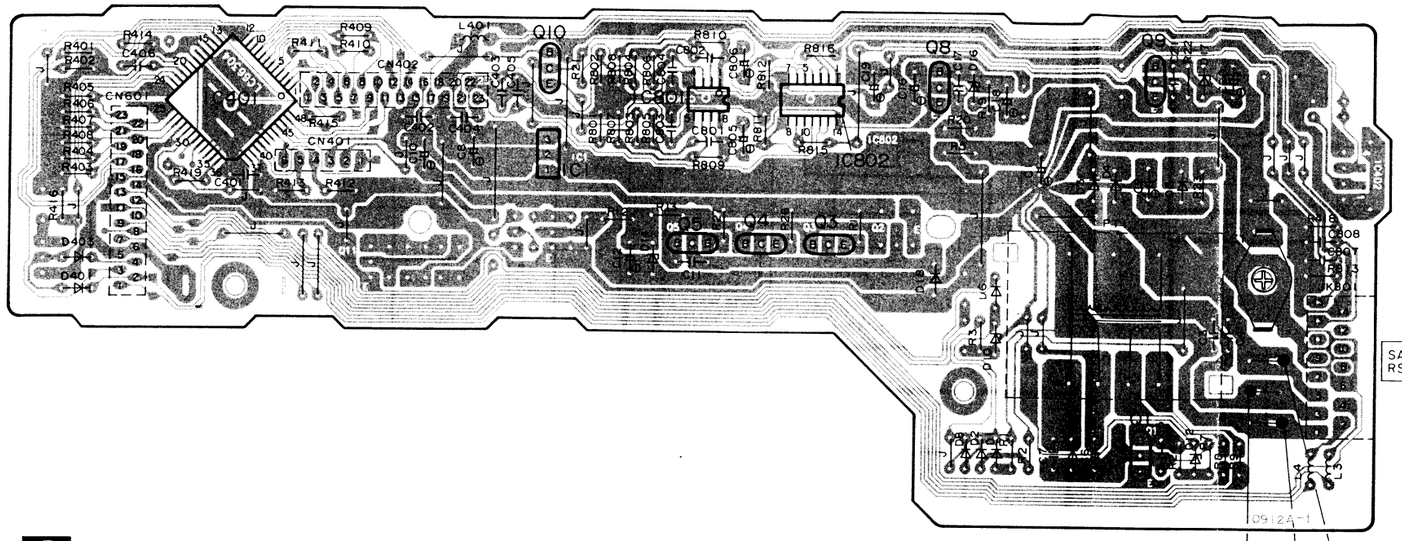




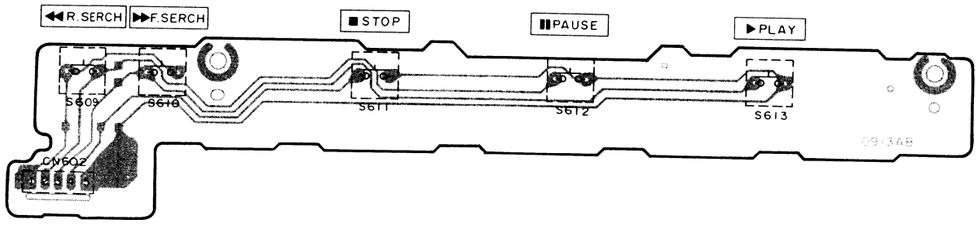


6 7 8 9 10 11 12 13 14

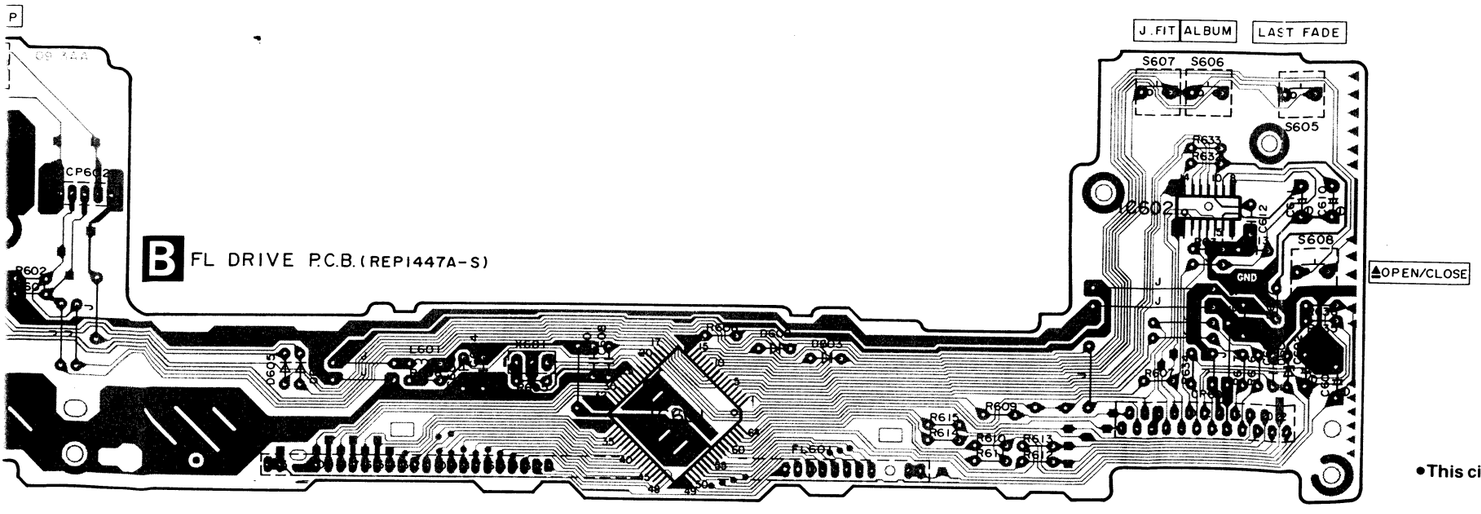
E MAIN P.C.B. (REP1446A-M)



C OPERATION P.C.B. (REP1447A-S)



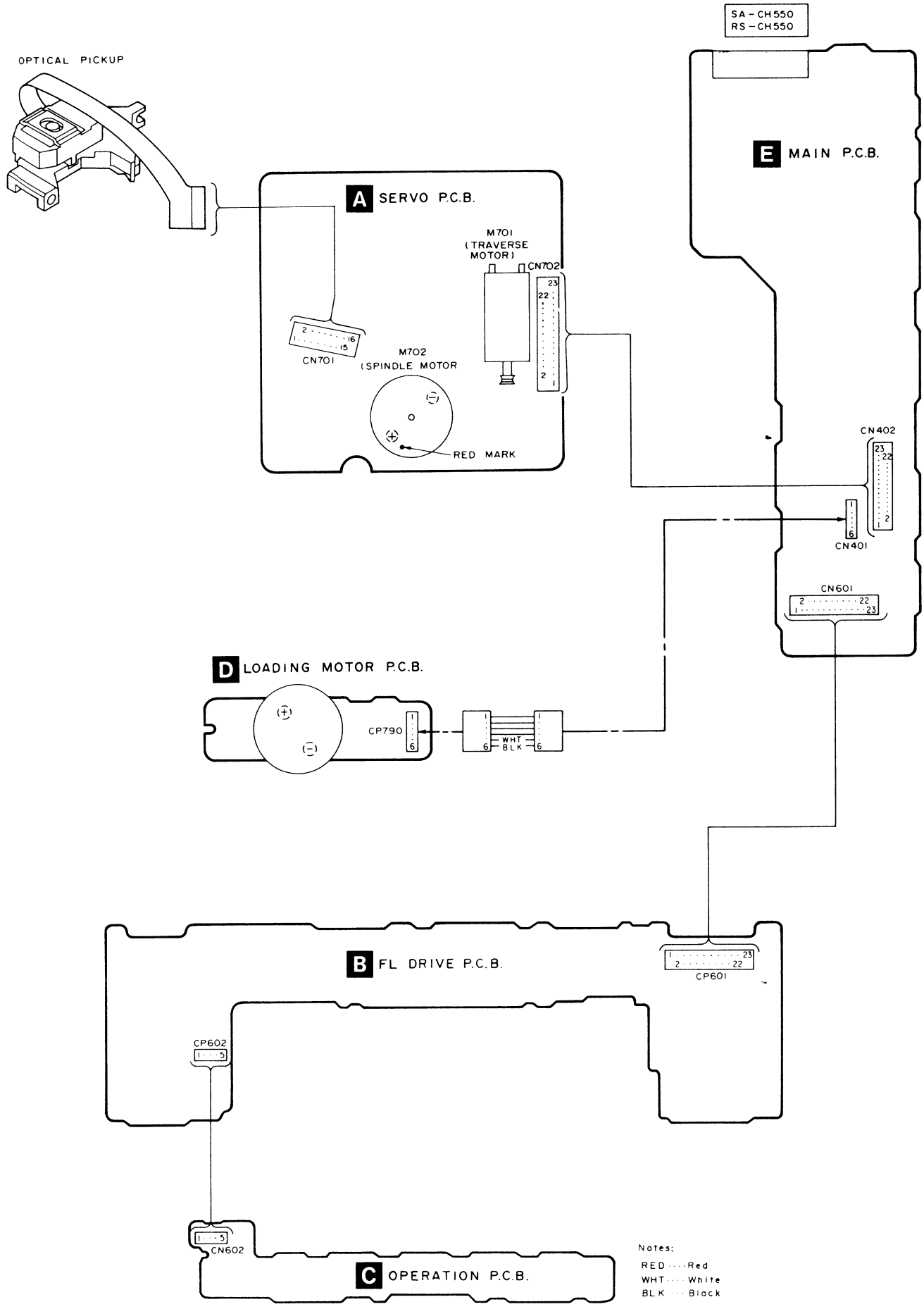
B FL DRIVE P.C.B. (REP1447A-S)



BA4558FT1	TC4066BFTP1	LA5608M-TE-L 14Pin AN8802SCE1V 32Pin	
M38112M4100F 64Pin MN66271 80Pin		LC66304A4935	TA7291S
LM2940T5M	AN8389SE1	2SA1309AQSTA 2SC3311AQSTA UN4112TA	
2SB1238QSTV6	2SD2037EFTA	2SB709STW	MA4300MTA
MA165TA MA167TA MA185TA 1SR35200TB		MA4051MTA MA4056MTA MA4075MTA MA4082LTA	

● This circuit board diagram may be modified at any time with the development of new technology.

■ WIRING CONNECTION DIAGRAM



■ NEW DIGITAL SERVO CIRCUIT

This model employs a new digital servo circuit. Compared to the old digital servo circuit, the following points have been improved.

1. **Reduced operated noise**
   Loading mechanism 2-level speed reducer
2. **Reduced access time**
   [(old) 2.9 seconds→(new) 1.9 seconds]
   Change of traverse gear
3. **Improved vibration resistance**
   Rubber and spring 2-level floating mechanism
   [fo=50 Hz (old)→20 Hz (new)]
4. **Reduced number of parts**
   Use of a single super IC tip
   3 chips (MN6626, MN6650, AN8800) are reduced to a single chip (MN66271)

•Refer to the service manual for Model No. SL-CH7, Order No. AD9104084C8 for information on DIGITAL SERVO SYSTEM and CHECKING THE OPERATION PROBLEMS ON THE TRAVERSE DECK (OPTICAL PICKUP).

■ MEASUREMENTS AND ADJUSTMENTS

Caution:
•It is very dangerous to look at or touch the laser beam. (Laser radiation is invisible.)
With the unit turned "on", laser radiation is emitted from the pickup lens.
Avoid exposure to the laser beam, especially when performing adjustments.

■ This unit (SL-CH550) is actuated by power supply from the tuner amplifier SA-CH550.
If you wish to actuate this unit without using the tuner amplifier SA-CH550 for checking or repairing, follow below procedure.
•Apply AC 10 V between AC (J1)– CT (J3)– AC (J2).

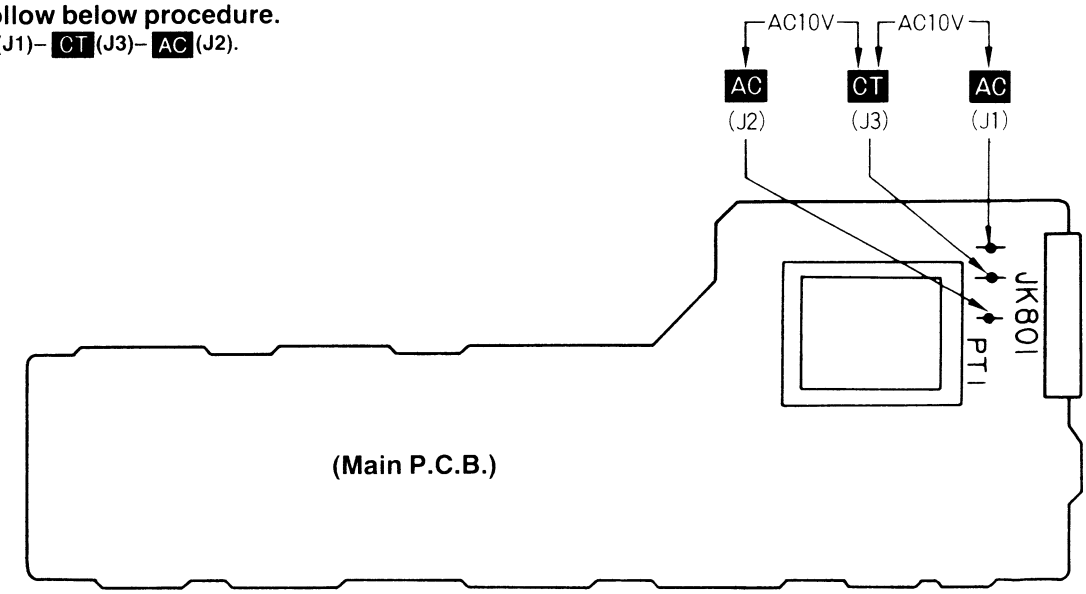


Fig. 1

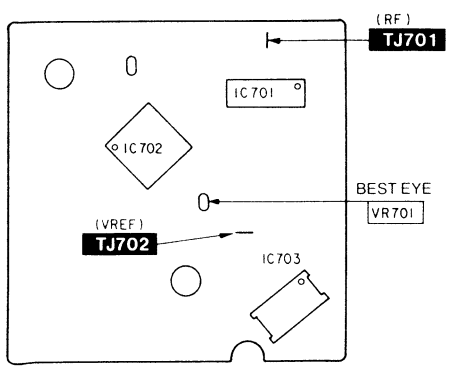


Fig. 2

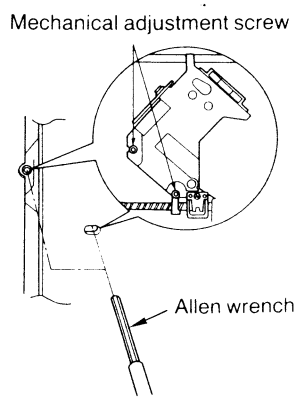


Fig. 3

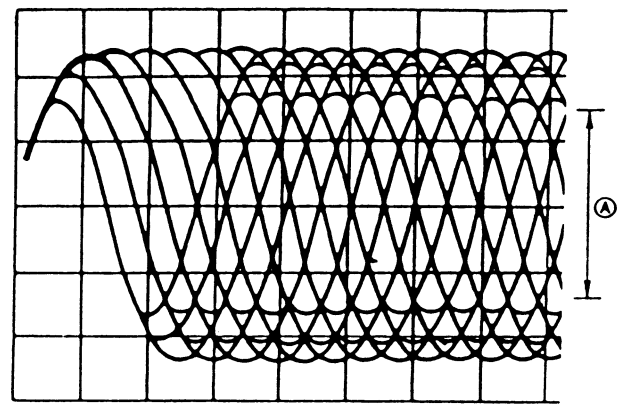
Measuring Instruments and Special Tools

- Test disc
  1. Playability test disc (SZZP1054C)
  2. Uneven test disc (SZZP1056C)
- Allen wrench (M2.0) (SZZP1101C)
- Oscilloscope

(1) MECHANICAL ADJUSTMENT

- When the traverse deck is replaced, making adjustments is not necessary. (The traverse deck ass'y is already adjusted.)
- Make adjustments to improve playability when the traverse deck has not been replaced. Make the electrical adjustments first.

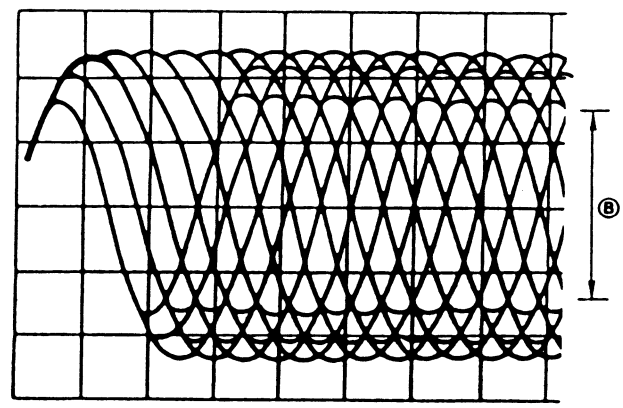
1. Connect the oscilloscope's CH. 1 probe across **TJ701** (+) and **TJ702** (VREF) on the Servo P.C.B.
   Oscilloscope setting:
   VOLT ..... 200 mV
   SWEEP ..... 0.5 µsec
   Input coupling ..... AC
2. Switch the player power **ON**, and play track **19** on the test disc (SZZP1056C).
3. Leave the player in Play mode and place it as shown in the figure on the right.
4. Alternately adjust the two mechanical adjusting screws with the 2.0 mm allen wrench (SZZP1101C) until the RF signal amplitude on the oscilloscope is maximize. (Shown in Fig. 3)
5. After completing the adjustment, lock the **mechanical adjustments** with lock paint (RZZOL01).



Ⓐ **Maximize the amplitude.**

(2) BEST EYE (PD BALANCE) ADJUSTMENT

1. Connect the oscilloscope's CH. 1 probe across **TJ701** (+) and **TJ702** (VREF) on the Servo P.C.B.
   Oscilloscope setting:
   VOLT ..... 200 mV
   SWEEP ..... 0.5 µsec
   Input coupling ..... AC
2. Switch the player power **ON**, and play the 1 kHz (track 1) on test disc (SZZP1054C).
3. Adjust **VR701 until the RF signal eye pattern amplitude is maximized.** (Shown in Fig. 2)



Ⓑ **Maximize the amplitude.**

(3) CHECK OF PLAY OPERATION AFTER ADJUSTMENT

•Checking Skip Search

1. Play an ordinary musical program disc.
2. Press the skip button to check for normal skip search operation (in both the forward and reverse directions).

•Checking Manual Search

1. Play an ordinary musical program disc.
2. Press the manual search button to check for smooth manual search operations at either low or high speed (in both the forward and reverse directions).

•Checking Playability

1. Play the 0.7 mm black dot and the 0.7 mm wedge on the test disc (SZZP1054C) and verify that no sound skip or noise occurs.
2. Play the middle tracks of the uneven test disc and verify that no sound skip or noise occurs.

■ FUNCTION OF IC TERMINALS

•IC601 (M38112M4100F)

Pin No.	Terminal Name	I/O	Function
1	/SEND	O	Mechanism control communication transmission enable
2	/RECV	O	Mechanism control communication transmission enable
3	BSDTO	O	Bus data output
4	BSCKO	O	Bus clock output
5	BSDTI	I	Bus data input
6	BSCKI	I	Bus clock input
7	KIN3	I	Key matrix
8	KIN2	I	Key matrix
9	KIN1	I	Key matrix
10	KIN0	I	Key matrix
11	——	—	No use
12	KS3	O	Key scan strobing output
13	KS2	O	Key scan strobing output
14	KS1	O	Key scan strobing output
15	KS0	O	Key scan strobing output
16	/CD	O	CD power control
17	CD POWER	I	Station detector input
18	HALT	I	Power failure detection input
19	RST	I	Reset input
20	XC IN	—	No use
21	XCOUT	—	No use
22	XIN	I	Oscillator connection clock input

Pin No.	Terminal Name	I/O	Function
23	XOUT	O	Oscillator connection clock output
24	GND	—	Power supply GND
25	——	—	No use (GND connection)
26	——		
27	——		
28	——		
29	MU1	O	Mute (for CD/TUNER)
30	MU2		
31 ≀ 40	G1 ≀ G10	O	FLD grid output
41 ≀ 56	S16 ≀ S1	O	FLD segment output
57	V_{DD}	—	Power supply +5 V
58	VP	—	FLD pull-down power supply
59	DATA3	I/O	Mechanism control communication data
60	DATA2	I/O	Mechanism control communication data
61	DATA1	I/O	Mechanism control communication data
62	DATA0	I/O	Mechanism control communication data
63	CLK	I/O	Mechanism control communication clock
64	ACK	I/O	Mechanism control communication acknowledge

•IC703 (AN8389SE1)

Pin No.	Terminal Name	I/O	Function
1	V_{CC}	I	Power supply
2	VREF	I	VREF input
3	IN4	I	Motor driver (4) input
4	IN3	I	Motor driver (3) input
5	GND	—	Ground connection
6	NC	—	No connection
7	NRESET	I	Reset input
8	GND	—	Ground connection
9	IN2	I	Motor driver (2) input
10	PC2	I	PC2 (power cut) input
11	IN1	I	Motor driver (1) input
12	PC1	I	PC1 (power cut) input (no use, open)

Pin No.	Terminal Name	I/O	Function
13	PVCC1	I	Power supply (1) for driver
14	PGND1	—	Ground connection (1) for driver
15	D1−	O	Motor driver (1) reverse-action output
16	D1+	O	Motor driver (1) forward-action output
17	D2−	O	Motor driver (2) reverse-action output
18	D2+	O	Motor driver (2) forward-action output
19	D3−	O	Motor driver (3) reverse-action output
20	D3+	O	Motor driver (3) forward-action output
21	D4−	O	Motor driver (4) reverse-action output
22	D4+	O	Motor driver (4) forward-action output
23	PGND2	—	Ground connection (2) for driver
24	PVCC2	I	Power supply (2) for driver

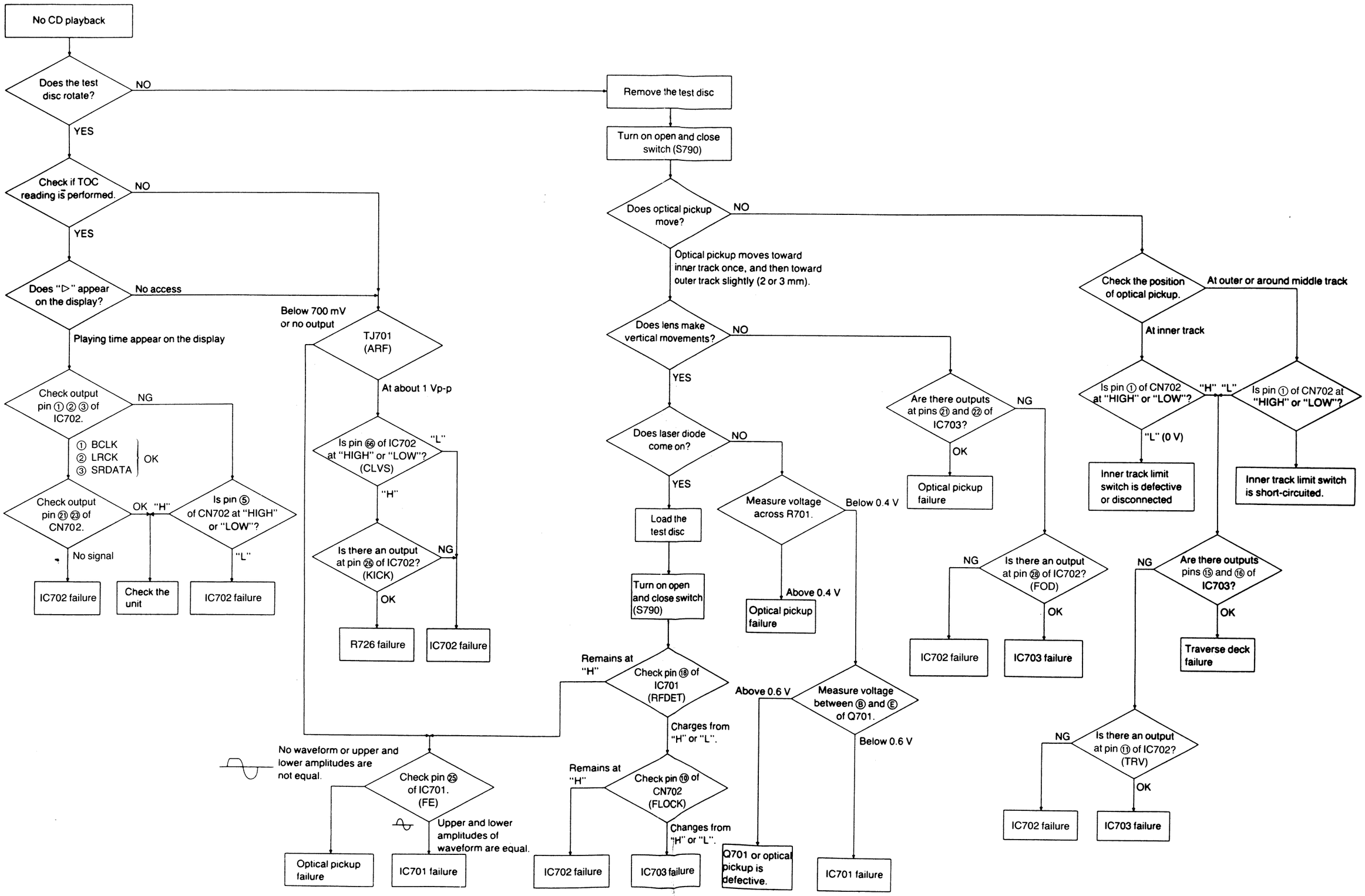
●IC701 (AN8802SCE1V)

Pin No.	Terminal Name	I/O	Function
1	PDAD	I	PD A channel signal input with delay
2	PDA	I	PD A channel signal input without delay
3	LPD	I	Laser PD connection
4	LD	O	Power supply for LD driving
5	AMPI	I	RF amplifier input
6	V_{CC}	I	Power supply connection
7	AMPO	O	RF amplifier output (no use, open)
8	CAGC	I	AGC loop filter connection
9	ARF	O	RF AGC output
10	CENV	I	Capacitor connection for RF detection
11	CEA	I	Capacitor connection for HPF amplifier
12	GND	—	Ground connection
13	LDON	I	ON/OFF input of LD APC ("H": ON, "L": OFF)
14	TES	I	Tracking error shunt signal input ("H": shunt)
15	PLAY	I	Play signal input ("H": PLAY)
16	WVEL	I	WVEL control
17	BDO	O	BDO output
18	/RFDET	O	NRFDET output
19	CROSS	O	CROSS output
20	OFTR	O	OFTR output
21	VDET	O	VDET output
22	ENV	O	ENV output
23	TEBPF	I	Vibration detection input
24	TE	O	Tracking error output
25	FE	O	Focus error output
26	PTO	O	Potentioamplifier output (no use, open)
27	PTI	I	Potentioamplifier inversion input (no use, open)
28	TBAL	I	Tracking balance input
29	FBAL	I	Focus balance input
30	VREF	O	VREF output
31	PDB	I	PD B channel signal input without delay
32	PDBD	I	PD B channel signal input with delay

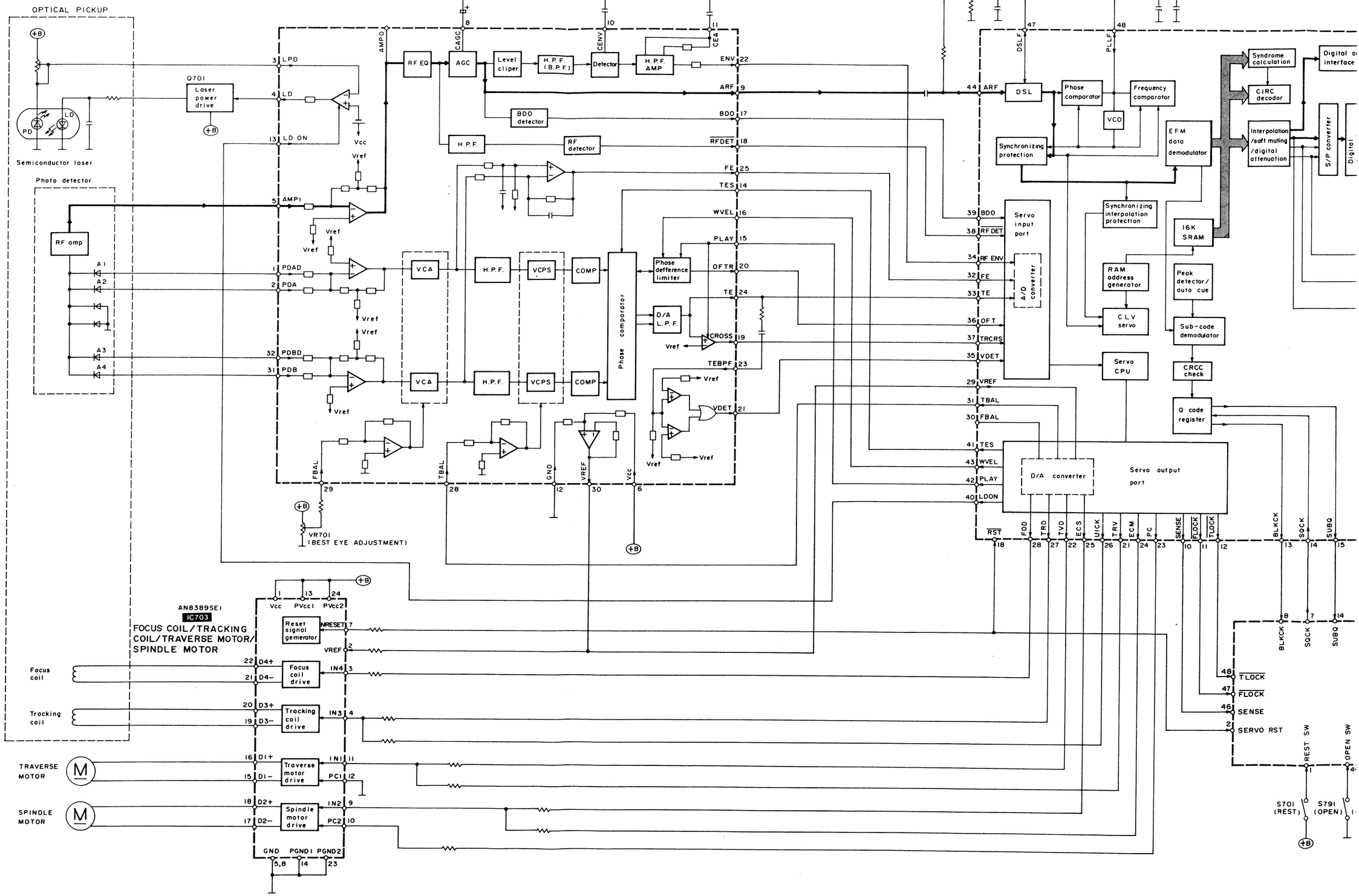
●IC702 (MN66271)

Pin No.	Terminal Name	I/O	Function
1	BCLK	O	Bit clock output for serial data (no used, open)
2	LRCK	O	L/R identification signal output (no use, open)
3	SRDATA	O	Serial data output (no used, open)
4	$DV_{DD}1$	I	Power supply input (for digital circuit)
5	$DV_{SS}1$	—	GND (for digital circuit)
6	TX	O	Digital audio interface signal output
7	MCLK	I	Microprocessor command clock signal input (Latches data at first transition)
8	MDATA	I	Microprocessor command data signal input
9	MLD	I	Microprocessor command load signal input
10	SENSE	O	Sence signal output (OFT, FESL, MAGEND, NAJEND, POSAD, SFG)
11	/FLOCK	O	Focus servo feeding signal output ("L": Feed)
12	/TLOCK	O	Tracking servo feeding signal output ("L": Feed)
13	BLKCK	O	Sub-code block clock signal output (fBLKCK=75 Hz during normal playback)
14	SQCK	I	External clock signal input for sub-code Q register
15	SUBQ	O	Sub-code Q code output
16	DMUTE	I	Muting input ("H": Mute)
17	STAT	O	Status signal output (CRC, CUE, CLVS, TTSTVP, FCLV, SQCK)
18	/RST	I	Reset input
19	SMCK	O	1/2-divided clock signal of crystal oscillating at MSEL="H" (fSMCK=8.4672 MHz) 1/4-divided clock signal of crystal oscillating at MSEL="L" (fSMCK=4.2336 MHz)
20	PMCK	O	1/192-divided clock signal of crystal oscillating (fPMCK=88.2 KHz) (no use, open)
21	TRV	O	Traverse forced feed output
22	TVD	O	Traverse drive output
23	PC	O	Spindle motor ON signal output ("L": ON)
24	ECM	O	Spindle motor drive signal output (forced mode output)
25	ECS	O	Spindle motor drive signal output (servo error signal output)
26	KICK	O	Kick pulse output
27	TRD	O	Tracking drive output
28	FOD	O	Focus drive output
29	VREF	I	D/A (drive) output (TVD, ECS, TRD, FOD, FBAL, TBAL) Reference voltage input
30	FBAL	O	Focus balance adjustment output (no use, open)
31	TBAL	O	Tracking balance adjustment output
32	FE	I	Focus error signal input (analog input)
33	TE	I	Tracking error signal input (analog input)
34	RFENV	I	RF envelope signal input
35	VDET	I	Vibration detection signal input ("H": detection)
36	OFT	I	Off-track signal input ("H": off track)
37	TRCRS	I	Track cross signal input
38	/RFDET	I	RF detection signal input ("L": detection)
39	BDO	I	Dropout signal input ("H": Dropout)
40	LDON	O	Laser on signal output ("H": ON)
41	TES	O	Tracking error shunt signal output ("H": shunt)
42	PLAY	O	Play signal out ("H": PLAY)
43	WVEL	O	Double speed status signal output ("H": Double speed)
44	ARF	I	RF signal input
45	IREF	I	Reference current input
46	DRF	I	DSL bias (no use, open)
47	DSLF	I/O	DSL loop filter
48	PLLF	I/O	PLL loop filter
49	VCOF	I/O	VCO loop filter (no use, open)
50	AVDD2	I	Power supply input (for analog circuit)
51	AVSS2	—	GND (for analog circuit)
52	EFM	O	EFM signal output (not use, open)
53	PCK	O	PLL extraction clock output (fPCK=4.321 MHz during normal playback) (no use, open)
54	PDO	O	Phase comparison signal of EFM and PCK signals (no use, open)
55	SUBC	O	Sub-code serial data output (no use, open)
56	SBCK	I	Clock input for sub-code serial data (no use, open)
57	Vss	—	GND
58	X1	I	Crystal oscillating circuit input (f=16.9344 MHz)
59	X2	O	Crystal oscillation circuit output (f=16.9344 MHz)
60	VDD	I	Power supply input (for oscillating circuit)
61	BYTCK	O	Byte clock output (no use, open)
62	/CLDCK	O	Sub-code frame clock signal output (fCLDCK=7.35 kHz during normal playback)
63	FCLK	O	Crystal frame clock signal output (fFCLK=7.35 kHz, double=14.7 kHz)
64	PFLAG	O	Interpolation flag output ("H": Interpolation) (no use, open)
65	FLAG	O	Flage output (no use, open)
66	CLVS	O	Spindle servo phase synchronizing signal output ("H": CLV, "L": rough servo) (no use, open)
67	CRC	O	Sub-code CRC checked output ("H": OK, "L": NG) (no use, open)
68	DEMPH	O	De-emphasis ON signal output ("H": ON) (no use, open)
69	RESY	O	Frame resynchronizing signal output (no use, open)
70	/RST2	I	Reset input through MASH circuit ("L": Reset)
71	/TEST	I	Test input
72	AVDD1	I	Power supply input (for analog circuit)
73	OUTL	O	Left channel audio signal output
74	AVSS1	—	GND
75	OUTR	O	Right channel audio signal output
76	RSEL	I	RF signal polarity assignment input (at "H" level, RSEL="H"; at "L" level, RSEL=L)
77	CSEL	I	Crystal oscillating frequency designation input ("L": 16.9344 MHz, "H": 33/8688 MHz)
78	PSEL	I	Test input (normally, "L") (no use, open)
79	MSEL	I	Output frequency switching for SMCK terminal "H": SMCK=8.4672 MHz "L": SMCK=4.2336 MHz (no use, open)
80	SSEL	I	Output mode switching of SUBQ terminal ("H": Q code buffer mode)

■ TROUBLESHOOTING GUIDE



■ BLOCK DIAGRAM



MN66271
IC702
PROCESSOR/DIGITAL SIGNAL PROCESSOR/
FILTER/D/A CONVERTER

+B
DVDD1 4
AVDD2 50
AVDD1 72
VDD 60
DVSS1 5
AVSS1 74
AVSS2 51
VSS 57
TX 6
Digital audio interface
S/P converter
Digital de-emphasis
Digital filter
MASH logic
PWM logic
OUTL 73
OUTR 75
LRCK 2
BCLK 1
SR DATA 3
X2 59
X1 58
X701
Timing generator
SMCK 19
Microcomputer interface
BLKCK 13
SQCK 14
SUBQ 15
DMUTE 16
STAT 17
MDATA 8
MCLK 7
MLD 9
OSCI 17
VDD 39

BA4558FTI
IC801
L.P. FILTER AMP
-B
+B
4
8
3
6
7
2
3
1

TC4066BFTPI
IC802
SWITCHING
-B
+B
7
14
6,12
8,11
9,10
5,13
1,4
2,3

Q10
Switching control

JK801
15 L ch
13 R ch
4 DATA
2 CLK
6 DC.GND
14 A.GND

LA5608M
IC602
BUS LINE DRIVE/RESET/HALT
12
1
14
11
2
13
3
10
+B
5
8
4
6
7
9
Standard voltage

RST
REST SW
OPEN SW
CLOSE SW
OPEN
CLOSE
Vss
11
40
41
45
44
16
S701 (REST)
S791 (OPEN)
S790 (CLOSE)
+B
2 Vcc
4 Vcc
6 VS
8 VREF
GND 5
1
9
3
7
TA7921S
IC790
MOTOR DRIVE
M
LOADING MOTOR

LC66304A4935
IC401
SYSTEM CONTROL
SEND 14
RECV 13
DATA 3 27
DATA 2 26
DATA 1 25
DATA 0 24
CLK 23
ACK 22
SEND 1
RECV 2
DATA 3 59
DATA 2 60
DATA 1 61
DATA 0 62
CLK 63
ACK 64

M38112M4100F
IC601
SYSTEM CONTROL/FL DRIVE
RST 21
D403
D401
RST 19
CD POWER 17
+B 57
-B 58
VDD 24
VP 16
GND
CD 22
X IN 23
X OUT
X601
BSCK 0 4
BSCK 1 6
BSDT 0 3
BSDT 1 5
HALT 18
KIN3 7
KIN0 10
KS0 15
KS3 12
S1 56
S16 41
G0 40
G1 31
NU2 30
NU1 29
KEY MATRIX
FL DISPLAY
S601~613
FL601

D8
D6
D10
D1,2
LM2940T5M
IC1
Regulator
Q3~5, D14,18
Regulator
D3,4
Q8, D16
Regulator
Q9, D17
Regulator
D5
Q1, D12
Regulator
D13
PT1
5 AC
3 CT
1 AC

■ REPLACEMENT PARTS LIST

Notes: *Important safety notice:
Components identified by ⚠ mark have special characteristics important for safety.
Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.
When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.
*The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area.)
Parts without these indications can be used for all areas.
*Warning: This product uses a diode. Refer to caution statements on page 2.

Ref. No.	Part No.	Part Name & Description	Remarks
		INTEGRATED CIRCUIT(S)	
IC1	LM2940T5	I. C, REGULATOR	
IC401	LC663D4A4935	I. C, SYSTEM CONTROL	
IC601	M38112M4100F	I. C, FL DRIVE/SYSTEM CONT,	
IC602	LA5608M-TE-L	I. C, BUS LINE/HALT/RESET	
IC790	TA7291S	I. C, MOTOR DRIVE	
IC801	SVIBA4558F	I. C, L. P. F. AMP.	
IC802	TC4066BFTP1	I. C, SWITCHING	
		INTEGRATED CIRCUIT(S)	
		(SERVO SCHEMATIC DIAGRAM)	
IC701	AN8802SCE1V	I. C, SERVO AMP.	
IC702	MN66271	I. C, SERVO PROCESSOR	
IC703	AN8389SE1	I. C, MOTOR DRIVE	
		TRANSISTOR(S)	
Q1	2SB1238QSTV6	TRANSISTOR	
Q3-5	2SD2037EFTA	TRANSISTOR	
Q8	2SC3311A-Q	TRANSISTOR	
Q9	2SA1309A-R	TRANSISTOR	
Q10	UN4112	TRANSISTOR	
		TRANSISTOR(S)	
		(SERVO SCHEMATIC DIAGRAM)	
Q701	2SB709S	TRANSISTOR	
		DIODE(S)	
D1, 2	MA167	DIODE	
D3-5	1SR35200TB	DIODE	⚠
D6	MA165	DIODE	
D8	MA165	DIODE	
D10	MA4051MTA	DIODE	
D12	MA4300M	DIODE	
D13	MA185TA	DIODE	
D14	MA4082LTA	DIODE	
D16, 17	MA4056MTA	DIODE	
D18	1SR35200TB	DIODE	⚠
D401	MA165	DIODE	
D403	MA165	DIODE	
D602-605	MA165	DIODE	
D606	MA4075MTA	DIODE	

Ref. No.	Part No.	Part Name & Description	Remarks
		VARIABLE RESISTOR(S)	
		(SERVO SCHEMATIC DIAGRAM)	
VR701	EVNDXAA00B14	V. R, BEST EYE ADJ.	
		COIL(S)	
L3, 4	ELEXT3R3KA9	COIL	
L601	ELEXT100KA9	COIL	
		OSCILLATOR(S)	
X601	RSXY4M23M01T	OSCILLATOR	
		OSCILLATOR(S)	
		(SERVO SCHEMATIC DIAGRAM)	
X701	RSXZ16M9M02T	OSCILLATOR	
		DISPLAY	
FL601	RSL0127-F	FL DISPLAY	⚠
		SWITCH(ES)	
S601	EVQ21405R	SW, R. SKIP	
S602	EVQ21405R	SW, F. SKIP	
S603	EVQ21405R	SW, REPEAT	
S604	EVQ21405R	SW, RANDOM	
S605	EVQ21405R	SW, LAST FADE	
S606	EVQ21405R	SW, ALBUM	
S607	EVQ21405R	SW, J. FIT	
S608	EVQ21405R	SW, OPEN/CLOSE	
S609	EVQ21405R	SW, R. SEARCH	
S610	EVQ21405R	SW, F. SEARCH	
S611	EVQ21405R	SW, STOP	
S612	EVQ21405R	SW, PAUSE	
S613	EVQ21405R	SW, PLAY	
S790	RSH1A005	SW, LOADING CLOSE DETECT	
S791	RSH1A005	SW, LOADING OPEN DETECT	
		SWITCH(ES)	
		(SERVO SCHEMATIC DIAGRAM)	
S701	RSM0006-P	SW, REST	

Ref. No.	Part No.	Part Name & Description	Remarks
		CONNECTOR(S)	
CN401	RJT029WD6VT	CONNECTOR(6P)	
CN402	RJS1A6823	SOCKET(23P)	
CN601	RJS1A6823	SOCKET(23P)	
CN602	SJS50581BB	SOCKET(5P)	
CP601	RJS1A6823	SOCKET(23P)	
CP602	SJT30549BB1	CONNECTOR(5P)	
CP790	RJP6G17ZA	CONNECTOR(6P)	
		CONNECTOR(S)	
		(SERVO SCHEMATIC DIAGRAM)	
CN701	RJU035T016-1	SOCKET(16P)	
CN702	RJS1A6723-1Q	SOCKET(23P)	
		EARTH TERMINAL(S)	
E1	SNE1004-1	GND PLATE	
		TRANSFORMER(S)	
PT1	RTP1I4G003	POWER TRANSFORMER	⚠
		JACK(S)	
JK801	RJT065K15	CONNECTOR(15P)	
		TEST JUMPER(S)	
		(SERVO SCHEMATIC DIAGRAM)	
TJ701	RRJ8GET001H	TEST JUMPER	
TJ702	RRJ8GET001H	TEST JUMPER	

Notes : * Capacity values are in microfarads (uF) unless specified otherwise, P=Pico-farads(pF) F=Farads(F)
* Resistance values are in ohms, unless specified otherwise, 1K=1,000(OHM) , 1M=1,000k(OHM)

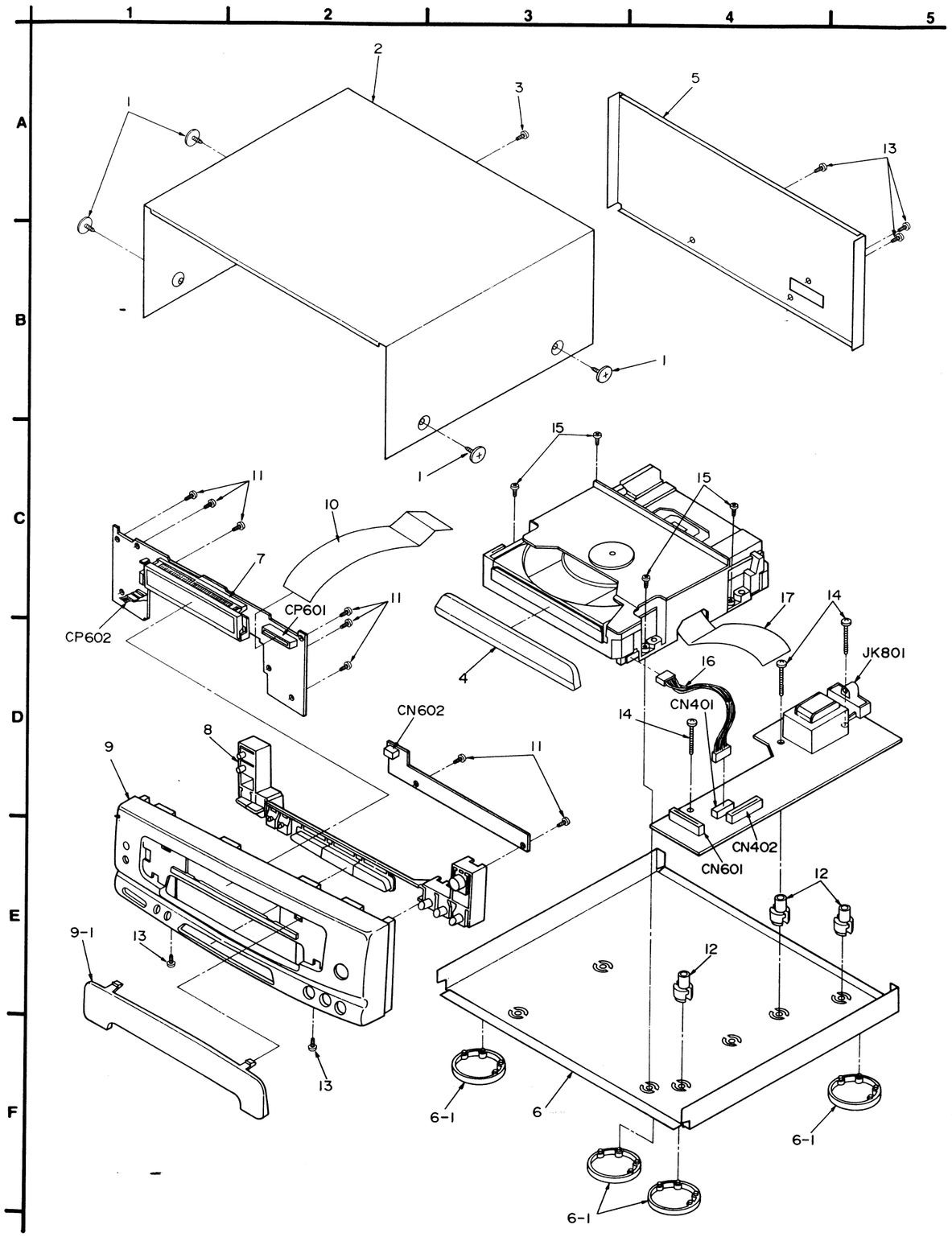
Ref. No.	Part No.	Values & Remarks
		RESISTORS
R1, 2	ERDS2TJ562	1/4W 5.6K
R3	ERDS2TJ472	1/4W 4.7K
R5	ERQ16NKWR15E	1W 0.15
R7	ERDS2TJ562	1/4W 5.6K
R8	ERDS2TJ8R2T	1/4W 8.2 ⚠
R9	ERDS2TJ6R8	1/4W 6.8 ⚠
R11	ERDS2TJ1R2	1/4W 1.2
R12	ERDS1FVJ271T	1/2W 270 ⚠
R13	ERD2FCVJ6R8T	1/4W 6.8 ⚠
R19	ERDS2TJ332	1/4W 3.3K
R20	ERD2FCVJ6R8T	1/4W 6.8 ⚠
R21	ERDS2TJ103	1/4W 10K
R22	ERDS2TJ332	1/4W 3.3K
R23	ERDS2EJ121	1/4W 120
R24	ERDS2TJ471	1/4W 470
R26, 27	ERDS2TJ1R2	1/4W 1.2
R401-409	ERDS2TJ472	1/4W 4.7K
R410	ERDS2TJ102	1/4W 1K
R411	ERDS2TJ472	1/4W 4.7K
R412, 413	ERDS2TJ103	1/4W 10K
R414	ERDS2TJ102	1/4W 1K
R415	ERDS2TJ560T	1/4W 56
R416	ERDS2TJ104	1/4W 100K
R419	ERDS2TJ472	1/4W 4.7K
R601-604	ERDS2TJ473	1/4W 47K
R605	ERDS2TJ102	1/4W 1K
R606	ERDS2TJ104	1/4W 100K
R607	ERDS2TJ103	1/4W 10K
R608, 609	ERDS2TJ102	1/4W 1K
R610-617	ERDS2TJ221	1/4W 220
R631	ERDS2TJ101	1/4W 100
R632, 633	ERDS2TJ472	1/4W 4.7K
R634	ERDS2TJ8R2T	1/4W 8.2 ⚠
R635, 636	ERDS2EJ121	1/4W 120
R637	ERDS2TJ470	1/4W 47
R801, 802	ERDS2TJ104	1/4W 100K
R803-806	ERDS2TJ223	1/4W 22K
R807, 808	ERDS2TJ273	1/4W 27K
R809, 810	ERDS2TJ332	1/4W 3.3K
R811-814	ERDS2TJ104	1/4W 100K
R815, 816	ERDS2TJ102	1/4W 1K
		RESISTORS
		SERVO SCHEMATIC DIAGRAM
R701	ERJ6GEYJ100	1/10W 10

Ref. No.	Part No.	Values & Remarks
R702	ERJ6GEYJ471V	1/10W 470
R703	ERJ6GEYJ823	1/10W 82K
R704	ERJ6GEYJ102A	1/10W 1K
R705	ERJ6GEYJ103V	1/10W 10K
R706	ERJ6GEYJ102A	1/10W 1K
R707	ERJ6GEYJ473V	1/10W 47K
R708	ERJ6GEYJ224V	1/10W 220K
R709	ERJ6GEYJ683V	1/10W 68K
R711	ERJ6GEYJ154V	1/10W 150K
R712	ERJ6GEYJ471V	1/10W 470
R714	ERJ6GEY0R00A	1/10W 0.00
R717-720	ERJ6GEYJ102A	1/10W 1K
R721	ERJ8GEYJ101V	1/8W 100
R722	ERJ6GEYJ473V	1/10W 47K
R723	ERJ6GEYJ182V	1/10W 1.8K
R724	ERJ6GEYJ333V	1/10W 33K
R725	ERJ6GEYJ472V	1/10W 4.7K
R726	ERJ6GEYJ473V	1/10W 47K
R727	ERJ6GEYJ103V	1/10W 10K
R728	ERJ6GEYJ392V	1/10W 3.9K
R730	ERJ6GEYJ331V	1/10W 330
R731	ERJ6GEYJ392V	1/10W 3.9K
R734-736	ERJ6GEYJ101V	1/10W 100
R738	ERJ6GEYJ223V	1/10W 22K
R739	ERJ6GEYJ681V	1/10W 680
R741-743	ERJ6GEYJ562V	1/10W 5.6K
R744	ERJ6GEYJ103V	1/10W 10K
R745	ERJ6GEYJ155V	1/10W 1.5M
R746	ERJ8GEYJ103V	1/8W 10K
R747	ERJ6GEYJ473V	1/10W 47K
		CHIP JUMPERS
		SERVO SCHEMATIC DIAGRAM
RJ701	ERJ8GEY0R00A	1/10W 0
RJ702	ERJ8GEY0R00A	1/10W 0
RJ703	ERJ8GEY0R00A	1/10W 0
RJ704	ERJ8GEY0R00A	1/10W 0
RJ705	ERJ8GEY0R00A	1/10W 0
RJ706	ERJ8GEY0R00A	1/10W 0
RJ707	ERJ8GEY0R00A	1/10W 0
RJ708	ERJ8GEY0R00A	1/10W 0
RJ709	ERJ8GEY0R00A	1/10W 0
RJ710	ERJ8GEY0R00A	1/10W 0
RJ711	ERJ8GEY0R00A	1/10W 0
RJ712	ERJ8GEY0R00A	1/10W 0
RJ713	ERJ8GEY0R00A	1/10W 0
RJ714	ERJ8GEY0R00A	1/10W 0
RJ715	ERJ8GEY0R00A	1/10W 0

Ref. No.	Part No.	Values & Remarks
RJ716	ERJ8GEY0R00A	1/10W 0
RJ717	ERJ8GEY0R00A	1/10W 0
RJ721	ERJ6GEY0R00A	1/10W 0
RJ722	ERJ6GEY0R00A	1/10W 0
RJ724	ERJ6GEY0R00A	1/10W 0
RJ725	ERJ6GEY0R00A	1/10W 0
RJ726	ERJ6GEY0R00A	1/10W 0
		CAPACITORS
C1	ECA1CM222B	16V 2200U
C2	ECA1EM101B	25V 100U
C3, 4	ECBT1E103ZF	25V 0.01U ⚠
C5	ECBT1H102KB5	50V 1000P
C6	ECA1HM101B	50V 100U
C7	ECKR2H1022F5	500V 1000P
C8	ECEA0JKA221B	6.3V 220U
C10	ECEA1AKA221Q	10V 220U
C11	ECBT1H102KB5	50V 1000P
C12	ECEA1AKA101B	10V 100U
C16	ECEA0JKA470B	6.3V 47U
C17	ECBT1H102KB5	50V 1000P
C18-20	ECEA0JKA470B	6.3V 47U
C21	ECBT1H102KB5	50V 1000P
C401	ECBT1H104ZF5	50V 0.1U
C402, 403	ECBT1H102KB5	50V 1000P
C404	ECBT1E1032F	25V 0.01U
C405	ECBT1H102KB5	50V 1000P
C406	ECBT1E1032F	25V 0.01U
C601	ECBT1H104ZF5	50V 0.1U
C602, 603	ECEA1HKA3R3B	50V 3.3U ⚠
C604	ECEA0JKS470	6.3V 47U
C605	ECBT1H102KB5	50V 1000P
C606	ECBT1E1032F	25V 0.01U
C608, 609	ECBT1E1032F	25V 0.01U
C610	ECEA1HKAR22B	50V 0.22U
C611	ECEA1HKAR33B	50V 0.33U
C612	ECBT1E223ZF	25V 0.022U
C613	ECBT1E1032F	25V 0.01U
C790	ECA1AKF820E	10V 82U
C801, 802	ECBT1H331KB5	50V 330P
C803, 804	ECBT1H121KB5	50V 120P
C805, 806	ECEA1EKA220B	25V 22U
C807, 808	ECBT1H101KB5	50V 100P
C790	ECA1AKF820E	10V 82U
		CAPACITORS
		SERVO SCHEMATIC DIAGRAM

Ref. No.	Part No.	Values & Remarks
C701	ECEA0JKA220	6.3V 22U
C702	ECEA1HKA010I	50V 1U
C703	ECEA0JKA101I	6.3V 100U
C704	ECUZ1E104MBN	25V 0.1U
C705	ECEA1HKA010I	50V 1U
C706	ECUE1H101JCN	50V 100P
C707	ECUV1E273KBN	25V 0.027U
C708	ECUE1H472KBN	50V 4700P
C709	ECUE1C473KBN	16V 0.047U
C710	ECUE1H152KBN	50V 1500P
C711, 712	ECUZ1E104MBN	25V 0.1U
C713	ECUV1C104MBM	16V 0.1U
C714	ECEA0JKA101I	6.3V 100U
C715	ECEA0JKA470I	6.3V 47U
C716	ECUE1H561KBN	50V 560P
C717	ECUZ1E104MBN	25V 0.1U
C718, 719	ECUV1C224KBM	16V 0.22U
C721, 722	ECUE1H100DCN	50V 10P
C723	ECEA1AKA221I	10V 220U
C724	ECUV1C104MBM	16V 0.1U
C725, 726	ECUE1H102KBN	50V 1000P
C727, 728	ECEA1HKA010I	50V 1U
C730	ECUZ1E104MBN	25V 0.1U
C731, 732	ECA0SSD151I	6.3V 150U
C733	ECUZ1E104MBN	25V 0.1U
C734	ECEA1AKA221I	10V 220U
C735-737	ECUZ1E104MBN	25V 0.1U
C738	ECUV1C154KBN	16V 0.15U
C742	ECUV1E273KBN	25V 0.027U
C743	ECUZ1E104MBN	25V 0.1U
C744	ECUE1E822KBN	25V 8200P
C745	ECUE1C473MBN	16V 0.047U
C746	ECUE1H050DCN	50V 5P
C747	ECUE1H222KBN	50V 2200P
C748	ECUV1H271KBM	50V 270P

■ CABINET PARTS LOCATION

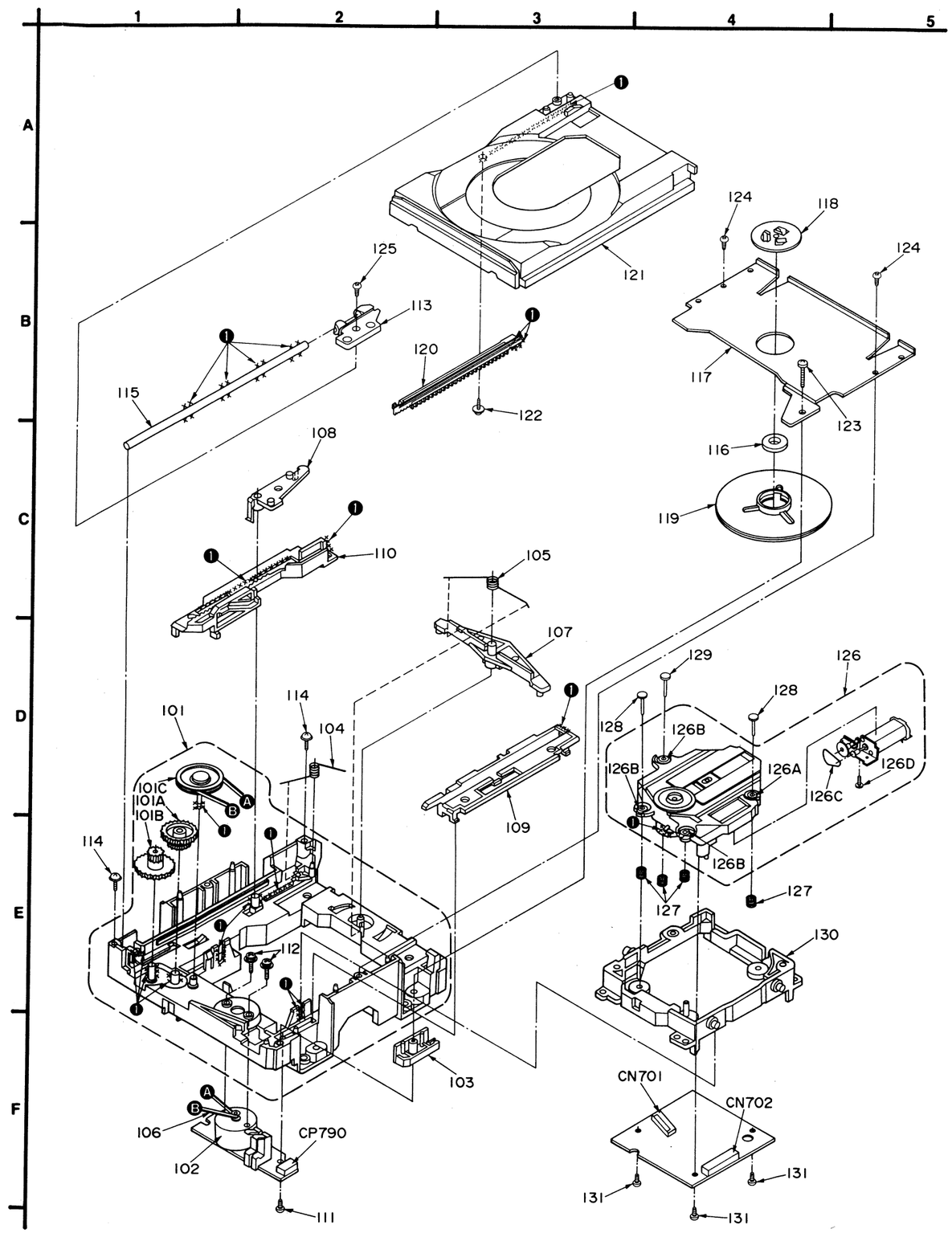


Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET PARTS	
1	RHD30007	SCREW	
2	RKM0203-1K	CABINET	
3	XTBS3+8JFZ1	SCREW	
4	RGK0479-K	TRAY PANEL	
5	RGR0146A-C	REAR PANEL	
6	RFKJLCH550NK	BOTTOM BOARD ASS'Y	
6-1	RKA0055-N	FOOT	
7	RMN0182-1	FL HOLDER	
8	RGU0761-K	OPERATION BUTTON	
9	RFKGLCH550EK	FRONT PANEL ASS'Y	
9-1	RKW0222-K	FL PANEL	
10	RWJ5423130EE	FLEXIBLE CABLE(23P)	
11	XTBS26+8J	SCREW	
12	SHE185-2	P.C.B. SPACER	
13	XTBS3+8JFZ1	SCREW	
14	XTB3+16JFZ	SCREW	
15	XTB3+8FFZ	SCREW	
16	REX0354	LEAD CABLE(6P)	
17	REZ0537	FLEXIBLE CABLE(23P)	

Ref. No.	Part No.	Part Name & Description	Remarks

Ref. No.	Part No.	Part Name & Description	Remarks
		LOADING PARTS	
101	RFKJLPG440BK	CHASSIS ASS'Y	
101A	RDG0142	LOADING GEAR	
101B	RDG0193	LOADING GEAR(1)	
101C	RDP0041	PULLEY	
102	REM0019	MOTOR ASS'Y	
103	RMA0339	HOLDER	
104	RME0063	LOCK LEVER SPRING	
105	RME0087	SPRING	
106	RMG0158	BELT	
107	RML0177	CONVERSION LEVER	
108	RML0178-1	LOCK LEVER	
109	RMM0059-1	SLIDE PLATE(2)	
110	RMM0079	SLIDE PLATE(1)	
111	XTN26+6G	SCREW	
112	XYN2+F6FZ	SCREW	
113	RDB0036	GUIDE HOLDER	
114	RHD20010	SCREW	
115	RMU0046	GUIDE SHAFT	
116	RHM2452A	MAGNET	
117	RMA0327-1	DISC CLAMPER	
118	RMR0334	MAGNET HOLDER	
119	RXQ0123	DISC HOLDER	
120	RFKNLPG440-K	DRIVE RACK ASS'Y	
121	RGQ0088-K	DISC TRAY	
122	RHD20009-1	SCREW	
123	XTB3+25GFZ	SCREW	
124	XTN26+6G	SCREW	
125	XTN3+8JFZ	SCREW	
126	RAE0111Z	TRAVERSE UNIT ASS'Y	
126A	SHGD112	RUBBER(A)	
126B	SHGD113-1	RUBBER(B)	
126C	RDV0023	BELT	
126D	SNSD38	SCREW	
127	RME0109	SPRING	
128	RMS0123-1	PIN(A)	
129	RMS0350	PIN(B)	
130	RMR0533-K	TRAVERSE CHASSIS	
131	XTV2+6G	SCREW	

■ LOADING UNIT PARTS LOCATION



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